ARC 8398B

ENVIRONMENTAL PROTECTION COMMISSION[567]

Notice of Intended Action

Twenty-five interested persons, a governmental subdivision, an agency or association of 25 or more persons may demand an oral presentation hereon as provided in Iowa Code section 17A.4(1)*"b."*

Notice is also given to the public that the Administrative Rules Review Committee may, on its own motion or on written request by any individual or group, review this proposed action under section 17A.8(6) at a regular or special meeting where the public or interested persons may be heard.

Pursuant to the authority of Iowa Code sections 459.103 and 459A.104, the Environmental Protection Commission hereby proposes to amend Chapter 65, "Animal Feeding Operations," Iowa Administrative Code.

The proposed amendments update the Department's rules to conform with statutory amendments in 2002 Iowa Acts (Senate File 2293); in 2006 Iowa Acts pertaining to open feedlot stockpiles (Senate File 2369); and in 2009 Iowa Acts pertaining to dry manure stockpiling (House File 735), to application of manure on snow-covered and frozen ground (Senate File 432, Division I), and to dry bedded confinement feeding operations (Senate File 432, Division II). In addition, the proposed amendments include revisions that reflect current procedures and numerous technical corrections and updates. While comments are invited for all items, the Department especially requests input regarding the following items.

In Item 2, the definition of "common management" is expanded to reflect the Department's interpretation for several years that ownership of the animals usually includes sufficient management control to satisfy the definition. If two or more operations are close enough to be adjacent and have either common ownership or common management, the operations are considered one operation for various separation and permitting requirements that apply based on the size of the operation.

Also in Item 2, the Commission is considering amending the definition of "residence" by deleting the requirement that a structure must be connected to electricity, a permanent water supply and a permanent domestic sewage disposal system. Other retained requirements in the definition pertain to whether the structure has a history of habitation rather than recent efforts to disqualify a proposed nearby confinement feeding operation structure. The deleted requirement appears to relate to a style of living which may not be relevant to this determination.

In Items 5 and 9, the proposed amendments to paragraph 65.2(3)"a" and subparagraph 65.3(4)"c"(2) require an operation constructed or expanded after July 1, 2009, to have at least 180 days of manure storage in order to qualify for the emergency application of liquid manure on frozen or snow-covered ground. This language attempts to clarify the provisions of 2009 Iowa Acts, Senate File 432, section 3, which literally requires each new manure storage structure to have at least 180 days of manure storage. The Department believes that the proposed language more clearly implements the intent of the legislation by encouraging additional manure storage structures of less capacity than 180 days as necessary to provide supplemental storage capacity as a means of achieving 180 days of storage capacity for the entire operation.

In Item 9, the proposed language in subparagraph 65.3(4)"c"(1) elaborates on the practical application of language in 2009 Iowa Acts, Senate File 432, section 3, that failure to properly account for the volume of manure to be stored does not qualify as an emergency. Although the legislation does not require minimum manure storage capacity for existing operations, an operation should not plan on being able to land-apply liquid manure during the period December 21 through April 1. Existing operations should instead explore other alternatives or provide sufficient manure storage capacity to retain manure generated during that period.

In Item 9, subparagraph 65.3(4)"d"(1), the proposed language requires a person who applied liquid manure on snow-covered or frozen ground during an emergency due to unforeseen circumstances including, but not limited to, natural disaster, unusual weather conditions, or equipment or structural failure as provided in paragraph 65.3(4)"c" to make documentation available, upon request, to the

Department if the emergency is not easily confirmed by weather reports. This approach is proposed rather than attempting to specify what constitutes an unforeseen circumstance.

In Item 9, subparagraph 65.3(4)"d"(4) includes the requirement in 2009 Iowa Acts, Senate File 432, section 3, that a surface water drain tile intake on land in an owner's manure management plan downgradient of an emergency liquid manure application must be blocked for at least two weeks after commencement of the application. In addition, the proposed language provides that removal of the tile protection before completion of snowmelt constitutes a "release" as defined in 567—65.1(455B) which requires reporting as provided in subrule 65.2(9). Because "release" includes the imminent discharge of manure to a drainage tile intake resulting from land-applying manure, the Department believes removal of the intake blockage prior to completion of snowmelt virtually guarantees discharge to the tile intake when snowmelt does occur which clearly invokes the release notification requirement.

Any interested person may make written suggestions or comments on the proposed amendments on or before February 1, 2010. Written comments should be directed to Gene Tinker, Iowa Department of Natural Resources, Wallace State Office Building, 502 E. 9th Street, Des Moines, Iowa 50319-0034; fax (515)281-8895; E-mail gene.tinker@dnr.iowa.gov.

Also, there will be public hearings as follows, at which time persons may present their views either orally or in writing:

January 12, 2010	4:30 p.m.	Orange City Gymnasium 125 Central Avenue SE Orange City
January 13, 2010	1:30 p.m.	NICC Dairy Center, Room 115 Highway 150 (south of Calmar) Calmar
January 15, 2010	11 a.m.	Wallace State Office Building Auditorium 502 E. 9th Street Des Moines
January 15, 2010	4:30 p.m.	Cass County Community Center 805 W. 10th Street Atlantic
January 20, 2010	1:30 p.m.	Marr Park Conservation Center 2943 Highway 92 Ainsworth
February 1, 2010	1:30 p.m.	NIACC Muse-Norris Conference Center 500 College Drive Mason City

At the hearings, persons will be asked to give their names and addresses for the record and to confine their remarks to the subject of the proposed amendments.

Any persons who intend to attend a public hearing and have special requirements, such as those related to hearing or mobility impairments, should contact the Department of Natural Resources and advise of specific needs.

These amendments are intended to implement Iowa Code chapters 459 and 459A and 2009 Iowa Acts, Senate File 432 and House File 735.

The following amendments are proposed.

ITEM 1. Amend **567—Chapter 65**, parenthetical implementation statutes for Division I, as follows:

(~~455B~~ 459,459B)

ITEM 2. Amend the following definitions in rule **567—65.1(459,459B)**:

"Adjacent—air quality" means, for the purpose of determining separation distance requirements pursuant to 567—65.11(459,459B), that two or more confinement feeding operations are adjacent if

they have animal feeding operation structures that are separated at their closest points by less than the following:

1. 1,250 feet ~~for confinement feeding operations with animal weight capacity less than 1,250,000 pounds for animals other than bovine, or less than 4,000,000 pounds for bovine~~ for a confinement feeding operation having an animal unit capacity of less than 1,250 animal units for swine maintained as part of a farrowing and gestating operation, less than 2,700 animal units for swine maintained as part of a farrow-to-finish operation, less than 4,000 animal units for cattle maintained as part of a cattle operation, or less than 3,000 animal units for any other confinement feeding operation, or for a confinement feeding operation consisting of dry bedded confinement feeding operation structures.

2. 1,500 feet ~~for confinement feeding operations with animal weight capacity from 1,250,000 pounds to less than 2,000,000 pounds for animals other than bovine; from 1,250,000 pounds to less than 2,500,000 pounds for swine in a farrow-to-finish operation; or 4,000,000 pounds to less than 6,000,000 pounds for bovine~~ for a confinement feeding operation having an animal unit capacity of 1,250 or more but less than 2,000 animal units for swine maintained as part of a swine farrowing and gestating operation, 2,700 or more but less than 5,400 animal units for swine maintained as part of a farrow-to-finish operation, 4,000 or more but less than 6,500 animal units for cattle maintained as part of a cattle operation, or for any other confinement feeding operation having an animal unit capacity of 3,000 or more but less than 5,000 animal units.

3. 2,500 feet ~~for confinement feeding operations with animal weight capacity of 2,000,000 or more pounds for animals other than bovine; 2,500,000 or more pounds for swine in a farrow-to-finish operation; or 6,000,000 or more pounds for bovine~~ for a confinement feeding operation having an animal unit capacity of 2,000 or more animal units for swine maintained as part of a swine farrowing and gestating operation, 5,400 or more animal units for swine maintained as part of a farrow-to-finish operation, or 6,500 or more animal units for cattle maintained as part of a cattle operation, or for any other confinement feeding operation with 5,000 or more animal units.

4. ~~These~~ The distances in "1" to "3" above shall only be used to determine that two or more confinement feeding operations are adjacent if ~~the~~ at least one ~~animal~~ confinement feeding operation structure ~~is~~ was constructed on or after March ~~20~~ 21, 1996.

5. To determine if two or more confinement feeding operations are adjacent, for the purpose of determining the separation distance requirements, the animal ~~weight~~ unit capacity of each individual operation shall be used. If two or more confinement feeding operations ~~are~~ do not ~~in~~ have the same animal ~~weight~~ unit capacity ~~category~~, the greater animal ~~weight~~ unit capacity shall be used to determine the separation distance.

6. Dry manure that is stockpiled within a distance of 1,250 feet from another stockpile shall be considered part of the same stockpile.

"Adjacent—water quality" means, for the purpose of determining ~~whether a permit is required~~ the construction permit requirements pursuant to 567—65.7(459,459B) and manure management plan requirements pursuant to 567—65.16(459,459B), that two or more confinement feeding operations are adjacent if they have ~~animal~~ confinement feeding operation structures that are separated at their closest points by less than the following:

1. 1,250 feet for confinement feeding operations ~~with combined animal weight capacity less than 625,000 pounds for animals other than bovine, or less than 1,600,000 pounds for bovine~~ having a combined animal unit capacity of less than 1,000 animal units.

2. 2,500 feet for confinement feeding operations ~~with combined animal weight capacity of 625,000 or more pounds for animals other than bovine, or 1,600,000 or more pounds for bovine~~ having a combined animal unit capacity of 1,000 or more animal units.

3. ~~These~~ The distances in "1" and "2" above shall only be used to determine that two or more confinement feeding operations are adjacent if ~~the~~ at least one ~~animal~~ confinement feeding operation structure is constructed or expanded on or after May 21, 1998.

"Anaerobic lagoon" means an unformed manure storage structure~~,~~ if the primary function of the structure is to store and stabilize manure, the structure is designed to receive manure on a regular

basis, and the structure's design waste loading rates provide that the predominant biological activity is anaerobic. An anaerobic lagoon does not include the following:

1. A runoff control basin ~~which collects and stores only precipitation-induced runoff from an animal feeding operation in which animals are confined to areas which are unroofed or partially roofed and in which no crop, vegetation, or forage growth or residue cover is maintained during the period in which animals are confined in the operation~~ or a settled open feedlot effluent basin which collects and stores only precipitation-induced runoff from an open feedlot operation.

2. An anaerobic treatment system that includes collection and treatment facilities for all off gases.

"Animal feeding operation" means a lot, yard, corral, building, or other area in which animals are confined and fed and maintained for 45 days or more in any 12-month period, and all structures used for the storage of manure from animals in the operation. Except as required for an NPDES permit required pursuant to the federal Water Pollution Control Act, 33 U.S.C. Chapter 26, ~~as amended,~~ an animal feeding operation does not include a livestock market. Open feedlots and confinement feeding operations are considered to be separate animal feeding operations.

1. For purposes of water quality regulation, Iowa Code section ~~455B.200B as amended by 2002 Iowa Acts, chapter 1137, section 31~~ 459.301 as amended by 2009 Iowa Acts, House File 735, section 6, provides that two or more animal feeding operations under common ownership or management are deemed to be a single animal feeding operation if they are adjacent or utilize a common area or system for manure disposal. For purposes of the air quality-related separation distances in Iowa Code section ~~455B.162, Iowa Code section 455B.161A as amended by 2002 Iowa Acts, chapter 1137, section 9~~ 459.202, Iowa Code section 459.201 provides that two or more animal feeding operations under common ownership or management are deemed to be a single animal feeding operation if they are adjacent or utilize a common system for manure storage. The distinction is due to regulation of animal feeding operations for water quality purposes under the federal Clean Water Act. The Code of Federal Regulations at 40 CFR §122.23 (~~1995~~ 2008) sets out the requirements for an animal feeding operation and requires that two or more animal feeding operations under common ownership be considered a single operation if they adjoin each other or if they use a common area or system for ~~manure~~ disposal of wastes. However, this federal regulation does not control regulation of animal feeding operations for the purposes of the separation distances in Iowa Code section ~~455B.162~~ 459.202, and therefore the definition is not required by federal law to include common areas for manure disposal.

2. To determine if two or more animal feeding operations are deemed to be one animal feeding operation, the first test is whether the animal feeding operations are under common ownership or management. If they are not under common ownership or management, they are not one animal feeding operation. For purposes of water quality regulation, the second test is whether the two animal feeding operations are adjacent or utilize a common area or system for manure disposal. If the two operations are not adjacent and do not use a common area or system for manure disposal, they are not one animal feeding operation. For purposes of the separation distances in Iowa Code section ~~455B.162~~ 459.202, the second test is whether the two animal feeding operations are adjacent or utilize a common system for manure storage. If the two operations are not adjacent and do not use the same system for manure storage, they are not one animal feeding operation.

3. A common area or system for manure disposal includes, but is not limited to, use of the same manure storage structure, confinement feeding operation structure, egg washwater storage structure, stockpile, permanent manure transfer piping system or center pivot irrigation system. A common area or system for manure disposal does not include manure application fields included in a manure management plan or anaerobic digesters.

"Animal feeding operation structure" means a confinement building, manure storage structure, dry bedded confinement feeding operation structure, or egg washwater storage structure.

"Animal unit" means a unit of measurement based upon the product of multiplying the number of animals of each category by a special equivalency factor, as follows:

1. Slaughter and feeder cattle 1.000
2. Immature dairy cattle 1.000
3. Mature dairy cattle 1.400

4. Butcher or breeding swine weighing more than 55 pounds 0.400
5. Swine weighing 15 pounds or more but not more than 55 pounds 0.100
6. Sheep or lambs 0.100
7. Horses 2.000
8. Turkeys weighing 7 pounds or more 0.018
9. Turkeys weighing less than 7 pounds 0.0085
~~9~~ 10. Broiler or layer chickens weighing 3 pounds or more 0.010
11. Broiler or layer chickens weighing less than 3 pounds 0.0025

"Animal unit capacity" means a measurement used to determine the maximum number of animal units that may be maintained as part of an animal feeding operation at any one time, including as provided in Iowa Code ~~sections 455B.161A as amended by 2002 Iowa Acts, chapter 1137, section 9, and 455B.200B as amended by 2002 Iowa Acts, chapter 1137, sections 3 to 32~~ section 459.201 and section 459.301 as amended by 2009 Iowa Acts, House File 735, section 6. For dry bedded confinement operations, "animal unit capacity" means the maximum number of animal units which the owner or operator confines in a dry bedded confinement feeding operation at any one time, including the animal unit capacity of all dry bedded confinement feeding operation buildings that are used to house cattle or swine in the dry bedded confinement feeding operation.

"Applicant" means the person applying for a construction or operation permit for ~~an animal~~ a confinement feeding operation. ~~The applicant shall be the owner or owners of the animal feeding operation.~~

"Cemetery" means a space held for the purpose of permanent burial, entombment or interment of human remains that is owned or managed by a political subdivision or private entity, or a cemetery regulated pursuant to Iowa Code chapter 523I ~~or 566A~~. A cemetery does not include a pioneer cemetery where there have been six or fewer burials in the preceding ~~fifty~~ 50 years.

"Common management" means significant control by a person of the management of the ~~day-today~~ day-to-day operations of each of two or more ~~animal~~ confinement feeding operations. Significant control includes the majority ownership by a person of the animals in each of two or more confinement feeding operations. For dry bedded confinement feeding operations, "common management" does not include control over a contract livestock facility by a contractor, as defined in Iowa Code section 202.1.

"Construction permit" means a written approval of the department to construct, modify or alter the use of an animal feeding operation structure as provided in subrule 65.7(1).

"Designated area" means a known sinkhole, ~~or a cistern,~~ abandoned well, unplugged agricultural drainage well, agricultural drainage well cistern, agricultural drainage well surface tile inlet, drinking water well, designated wetland, ~~lake,~~ or water source. ~~A designated~~ "Designated area" does not include a terrace tile inlet or surface tile inlet other than an agricultural drainage well surface tile inlet.

"Document" means any form required to be processed by the department under this chapter regulating animal feeding operations, including but not limited to applications or related materials for permits as provided in Iowa Code section ~~455B.200A as amended by 2002 Iowa Acts, chapter 1137, sections 28 and 29~~ 459.303, manure management plans as provided in Iowa Code section ~~455B.203 as amended by 2002 Iowa Acts, chapter 1137, sections 38 to 41~~ 459.312 as amended by 2009 Iowa Acts, Senate File 432, section 2, comment or evaluation by a county board of supervisors considering an application for a construction permit, the department's analysis of the application including using and responding to a master matrix pursuant to ~~2002 Iowa Acts, chapter 1137, section 35~~ Iowa Code section 459.304, and notices required under those sections.

"Enforcement action" means an action against a person with a controlling interest in a confinement feeding operation initiated by the department or the attorney general to enforce the provisions of Iowa Code chapter ~~455B~~ 459 or rules adopted pursuant to the chapter. An enforcement action begins when the ~~department issues an administrative order to the person, when the department notifies a person in writing of intent to recommend referral or the commission refers the action to the attorney general pursuant to Iowa Code section 455B.141 or 455B.191, or when the~~ attorney general institutes proceedings in district court pursuant to Iowa Code section 455B.112~~, whichever occurs first~~. An enforcement action is

pending until final resolution of the action by ~~satisfaction of an administrative order; rescission or other final resolution of an administrative order or~~ satisfaction of a court order, for which all ~~administrative and~~ judicial appeal rights are exhausted, expired, or waived.

"Freeboard" means the difference in elevation between the liquid level and the ~~top of the lowest point of animal~~ confinement feeding operation structure's ~~berm or the lowest external outlet from a formed manure storage structure. However, for a formed manure storage structure meeting the requirements of 65.15(20), "freeboard" means the difference in elevation between the liquid level and the structure's~~ overflow level.

"Indemnity fund" means the manure storage indemnity fund created in Iowa Code section ~~455J.2~~ 459.501.

"Manure storage structure" means a formed manure storage structure ~~or~~, an unformed manure storage structure or a dry bedded manure storage structure. A manure storage structure does not include an egg washwater storage structure.

"Owner" means the person who has legal or equitable title to the property where the ~~animal~~ confinement feeding operation is located or the person who has legal or equitable title to the animal feeding operation structures. ~~It~~ "Owner" does not include a person who has a lease to use the land where the animal feeding operation is located or to use the ~~animal~~ confinement feeding operation structures.

"Residence" means a house or other building, including all structures attached to the building, not owned by the owner of the ~~animal~~ confinement feeding operation, which meets all of the following criteria at the location of the intended residence:

1. Used as a place of habitation for humans on a permanent and frequent basis.
2. Not readily mobile.

~~3. Connected to a permanent source of electricity, a permanent private water supply or a public water supply system and a permanent domestic sewage disposal system including a private, semipublic or public sewage disposal system.~~

~~4.~~ 3. Assessed and taxed as real property.

If a house or other building has not been occupied by humans for more than six months in the last two years prior to the date the application for a construction permit is filed with the department, or if a house or other building has been constructed or moved to its current location within six months prior to the date the application for a construction permit is filed with the department, the owner of the intended residence has the burden of proving that the house or other building is a residence. ~~Paragraph "3" shall not apply to a house or other building inhabited by persons who are exempt from the compulsory education standards of Iowa Code section 299.24 and whose religious principles or tenets prohibit the use of the utilities listed.~~

ITEM 3. Adopt the following **new** definitions in rule **567—65.1(459,459B)**:

"Alluvial aquifer area" means an area underlaid by sand or gravel aquifers situated beneath flood plains along stream valleys and includes alluvial deposits associated with stream terraces and benches, contiguous wind-blown sand deposits, and glacial outwash deposits.

"Alluvial soils" means soils formed in materials deposited by moving water.

"Bedding" means crop, vegetation, or forage residue or similar materials placed in a dry bedded confinement building for the care of animals.

"Construction approval letter" means a written document of the department to acknowledge that the preconstruction submittal requirements of 567—65.9(459,459B) have been met for a confinement feeding operation that is not required to obtain a construction permit pursuant to 567—65.7(459,459B).

"Construction design statement" means a document required to be submitted by a confinement feeding operation prior to constructing a formed manure storage structure, other than a small animal feeding operation, but that does not meet the threshold engineering requirements pursuant to 567—65.1(459,459B).

"Dry bedded confinement feeding operation" means a confinement feeding operation in which cattle or swine are confined to areas which are totally roofed and in which all manure is stored as dry bedded

manure. Unless specifically stated otherwise, all requirements in Division I of 567—Chapter 65 do apply to dry bedded confinement feeding operations.

"Dry bedded confinement feeding operation structure" means a dry bedded confinement feeding operation building or a dry bedded manure storage structure.

"Dry bedded manure" means manure from cattle or swine that meets all of the following requirements:

1. The manure does not flow perceptibly under pressure.
2. The manure is not capable of being transported through a mechanical pumping device designed to move a liquid.
3. The manure contains bedding.

"Dry bedded manure confinement feeding operation building" or *"building"* means a building used in conjunction with a confinement feeding operation to house cattle or swine and in which any manure from the animals is stored as dry bedded manure.

"Dry bedded manure storage structure" means a covered or uncovered structure, other than a building, used to store dry bedded manure originating from a confinement feeding operation.

"Dry manure" means manure which meets all of the following conditions:

1. The manure does not flow perceptibly under pressure.
2. The manure is not capable of being transported through a mechanical pumping device designed to move a liquid.
3. The constituent molecules of the manure do not flow freely among themselves but may show a tendency to separate under stress.

"Dry manure" includes manure marketed as a bulk dry animal nutrient product that is stored 1,250 feet or less from the confinement animal feeding structure from which it originated.

"Frozen ground" means soil that is impenetrable due to frozen soil moisture but does not include soil that is only frozen to a depth of two inches or less.

"Liquid manure" means manure that meets all of the following requirements:

1. The manure flows perceptibly under pressure.
2. The manure is capable of being transported through a mechanical pumping device designated to move a liquid.
3. The constituent molecules of the liquid manure flow freely among themselves and show a tendency to separate under stress.

"Long-term stockpile location" means an area where a person stockpiles manure for more than a total of six months in any two-year period.

"Qualified stockpile cover" means a barrier impermeable to precipitation that is used to protect a stockpile from precipitation.

"Qualified stockpile structure" means a building or roofed structure that is all of the following:

1. Impermeable to precipitation.
2. Constructed using wood, steel, aluminum, vinyl, plastic, or other similar materials.
3. Constructed with walls or other means to prevent precipitation-induced surface runoff from contacting the stockpile.

"Snow-covered ground" means soil covered by one inch or more of snow or soil covered by one-half inch or more of ice.

"Stockpile" means dry manure or dry bedded manure originating from a confinement feeding operation that is stored at a particular location outside a confinement feeding operation building or a manure storage structure.

"Stockpile dry bedded manure" means to store dry bedded manure outside a dry bedded manure confinement feeding operation building or a dry bedded manure storage structure.

"Stockpile dry manure" means to create or add to a dry manure stockpile.

"Surface water drain tile intake" means an opening to a drain tile, including intake pipes and French drains, which allows surface water to enter the drain tile without filtration through the soil profile.

"Threshold requirements for an engineer" means the limits, pursuant to Iowa Code section 459.303, which require that the design of a formed manure storage structure or egg washwater storage structure be

prepared and signed by a professional engineer licensed in the state of Iowa or by an engineer working for the USDA Natural Resources Conservation Service (NRCS). A confinement feeding operation that utilizes a formed manure storage structure meets threshold requirements for an engineer if any of the following applies:

1. A confinement feeding operation with an animal unit capacity of 1,250 or more animal units for swine maintained as part of a swine farrowing and gestating operation.
2. A confinement feeding operation with an animal unit capacity of 2,750 or more animal units for swine maintained as part of a swine farrow-to-finish operation.
3. A confinement feeding operation with an animal unit capacity of 4,000 or more animal units for cattle maintained as part of a cattle operation.
4. Any other confinement feeding operation with an animal unit capacity of 3,000 or more animal units.

"Water well" means an excavation that is drilled, cored, bored, augered, washed, driven, dug, jetted, or otherwise constructed for the purpose of exploring for groundwater, monitoring groundwater, utilizing the geothermal properties of the ground, or extracting water from or injecting water into the aquifer. "Water well" does not include an open ditch or drain tiles or an excavation made for obtaining or prospecting for oil, natural gas, minerals, or products mined or quarried.

ITEM 4. Rescind the definitions of "Family," "Family farm member," "Nonpublic water supply," "Primary highway," "Substantial improvements," "Substantial labor" and "Watercourse" in rule **567—65.1(459,459B)**.

ITEM 5. Amend rule 567—65.2(459,459B), introductory paragraph, as follows:

567—65.2(459,459B) Minimum manure control requirements and reporting of releases. ~~Water pollution control facilities~~ Confinement feeding operations shall be constructed, managed and maintained to meet the minimum manure control requirements stated in subrules 65.2(1) to 65.2(8) of this rule. A release shall be reported to the department as provided in subrule 65.2(9) of this rule. Dry manure stockpiling requirements are stated in subrule 65.2(10). Dry bedded manure stockpiling requirements are stated in 65.2(11).

ITEM 6. Amend subrule 65.2(3) as follows:

65.2(3) The minimum level of manure control for a confinement feeding operation shall be the retention of all manure produced in the confinement enclosures between periods of manure application and as specified in this rule. In no case shall manure from a confinement feeding operation be discharged directly into a water of the state or into a tile line that discharges to waters of the state.

a. Control of manure from confinement feeding operations may be accomplished through use of manure storage structures or other manure control methods. Sufficient capacity shall be provided in the manure storage structure to store all manure between periods of manure application. A confinement feeding operation, other than a small animal feeding operation, that is constructed or expanded on or after July 1, 2009, shall not surface-apply liquid manure on frozen or snow-covered ground when there is an emergency, as described in subrule 65.3(4), unless the operation has a minimum of 180 days of manure storage capacity. Additional capacity shall be provided if precipitation, manure or wastes from other sources can enter the manure storage structure.

b. Manure shall be removed from the control facilities as necessary to prevent overflow or discharge of manure from the facilities. Manure stored in unformed manure storage structures or ~~earthen waste slurry storage basins~~ unformed egg washwater storage structures shall be removed from the structures as necessary to maintain a minimum of two feet of freeboard in the structure, unless a greater level of freeboard is required to maintain the structural integrity of the structure or prevent manure overflow. Manure stored in unroofed formed manure storage structures or formed egg washwater storage structures shall be removed from the structures as necessary to maintain a minimum of one foot of freeboard in the structure unless a greater level of freeboard is required to maintain the structural integrity of the structure or prevent manure overflow.

c. No change.

d. Dry manure or dry bedded manure originating at a confinement feeding operation may be retained as a stockpile so long as the stockpiled dry manure or dry bedded manure meets the following:

(1) Dry manure stockpiling requirements provided in subrule 65.2(10). Dry bedded manure stockpiling requirements provided in subrule 65.2(11).

(2) Applicable NPDES requirements pursuant to the federal Water Pollution Control Act, 33 U.S.C. Ch. 26, and 40 CFR Pts. 122 and 412.

(3) The dry manure or dry bedded manure is removed from the stockpile and applied in accordance with 567—65.3(459,459B) within six months after the dry manure or dry bedded manure is first stockpiled.

(4) Dry manure stockpiles are not required to meet the requirements in subparagraphs (1) to (3) above if the dry manure originates from a confinement feeding operation that was constructed prior to January 1, 2006, unless any of the following apply:

1. The confinement feeding operation is expanded after January 1, 2006.
2. Dry manure is stockpiled in violation of subrule 65.2(3).
3. Precipitation-induced runoff from the stockpile has drained off the property.

ITEM 7. Adopt the following **new** subrules 65.2(10) and 65.2(11):

65.2(10) Dry manure stockpiling requirements for a confinement feeding operation.

a. Requirements for terrain, other than karst terrain. Dry manure stockpiled on terrain, other than karst terrain, for more than 15 consecutive days shall comply with either of the following:

(1) Dry manure shall be stockpiled using any of the following:

1. A qualified stockpile structure; or
2. A qualified stockpile cover. Long-term stockpiles utilizing a qualified stockpile cover shall be placed on any of the following:

- Compacted soil: Soil that has had vegetation removed, the top six inches disked, and soil recompacted to 95 percent of the maximum density as determined by the Standard Proctor test after compaction. Test results from a minimum of four tests per stockpile area shall be submitted prior to use of the stockpile site.
- Compacted granular material: A minimum of 6 inches of compacted crushed limestone, Iowa Department of Transportation gradation 4125.01B, or flash.
- Asphalt: A minimum of 5 inches thick, placed in two passes, of Class B mix using 1/2 inch to 3/4 inch aggregate.
- Concrete: A minimum of 5-inch-thick unreinforced concrete producing minimum 3500 psi strength.
- Other similar material: Department approval required.

(2) A stockpile inspection statement may be delivered to the department as follows:

1. The department must receive the statement by the fifteenth day of each month.
2. The stockpile inspection statement shall provide the location of the stockpile and document the results of an inspection conducted during the previous month. The inspection must evaluate whether precipitation-induced runoff is draining away from the stockpile and, if so, describe actions taken to prevent the runoff. If an inspection by the department documents that precipitation-induced runoff is draining away from a stockpile, the dry manure must be immediately removed from the stockpile or comply with all directives of the department to prevent the runoff.
3. The stockpile inspection statement must be in writing and may be on a form prescribed by the department.

b. Requirements for karst terrain. Dry manure stockpiled on karst terrain or an area that drains into a known sinkhole shall comply with all of the following:

(1) A minimum 5-foot layer of low permeability soil or rock between the bottom of the stockpile and underlying limestone, dolomite or other soluble rock is required. A professional engineer licensed in Iowa, NRCS engineer or qualified organization shall submit a soil report, based on the results from soil borings or test pits or representative well data, describing the subsurface materials and vertical separation distance from the proposed bottom of the stockpile and the underlying limestone, dolomite or soluble

rock. A minimum of two soil borings or test pits at each end of the proposed stockpile site are required if acceptable well data are not available. After soil exploration is complete, each boring or test pit shall be properly plugged with concrete grout, bentonite or similar materials and documented in the soil report.

(2) Dry manure stockpiled for more than 15 consecutive days shall use any of the following:

1. A qualified stockpile structure; or

2. A qualified stockpile cover. Long-term stockpiles utilizing a qualified stockpile cover shall be placed on a reinforced concrete slab at least 5 inches thick conforming to the requirements of 65.15(14)*"a"*(2), numbered paragraphs "1," "3," "4," "6," "8" and "12."

c. Dry manure stockpile siting prohibitions.

(1) Grassed waterway. A stockpile or stockpile structure shall not be placed in a grassed waterway.

(2) Sloping land. A stockpile or stockpile structure shall not be placed on land having a slope of more than 3 percent, unless the dry manure is stockpiled using methods, structures, or practices that contain the stockpile, including but not limited to silt fences, temporary earthen berms, or other effective measures, and that prevent or diminish precipitation-induced runoff from the stockpile.

65.2(11) Dry bedded manure stockpiling requirements for a dry bedded confinement feeding operation.

a. Prohibitions and siting restrictions.

(1) Prohibition in a grassed waterway. A stockpile or stockpile structure shall not be placed in a grassed waterway, where water pools on the soil surface, or in any location where surface water will enter the stockpile.

(2) Siting restrictions. A stockpile or stockpile structure shall not be placed on land having a slope of more than 3 percent, unless the dry manure or dry bedded manure is stockpiled using methods, structures, or practices that contain the stockpile, including but not limited to hay bales, silt fences, temporary earthen berms, or other effective measures that prevent or diminish precipitation-induced runoff from the stockpile.

b. Requirements for karst terrain or alluvial aquifer areas. Dry bedded manure stockpiled on karst terrain or an alluvial aquifer area shall comply with all of the following:

(1) A minimum 5-foot layer of low permeability soil or rock between the bottom of the stockpile and underlying limestone, dolomite or other soluble rock in karst terrain or the underlying sand and gravel aquifer in an alluvial aquifer area is required. A professional engineer licensed in Iowa, NRCS engineer or qualified organization shall submit a soil report, based on the results from soil borings or test pits, determining the vertical separation distance from the proposed bottom of the stockpile and the underlying limestone, dolomite or soluble rock. A minimum of two soil borings or test pits at each end of the proposed site are required if acceptable well data are not available. After soil exploration is complete, each boring or test pit shall be properly plugged with concrete grout, bentonite or similar materials and documented in the soil report.

(2) Stockpiles shall be placed on a reinforced concrete slab that is a minimum of 5 inches thick conforming to the requirements of 65.15(14)*"a"*(2), numbered paragraphs "1," "3," "4," "6," "8" and "12."

ITEM 8. Amend paragraph **65.3(3)"a"** as follows:

a. For liquid manure from a confinement feeding operation, the required separation distance from a residence not owned by the titleholder of the land, a business, a church, a school, or a public use area is 750 feet, as specified in Iowa Code section ~~455B.162~~ 459.204. The separation distance for application of manure by spray irrigation equipment shall be measured from the actual wetted perimeter and the closest point of the residence, business, church, school, or public use area.

ITEM 9. Adopt the following **new** subrule 65.3(4):

65.3(4) *Surface application of liquid manure on frozen or snow-covered ground.* A person who applies liquid manure on frozen or snow-covered ground shall comply with applicable NPDES requirements pursuant to the federal Water Pollution Control Act, 33 U.S.C. Chapter 26, and 40 CFR Parts 122 and 412, and also shall comply with the following requirements:

a. Snow-covered ground. During the period beginning December 21 and ending April 1, a person may apply liquid manure originating from a manure storage structure that is part of a confinement feeding operation on snow-covered ground only when there is an emergency.

b. Frozen ground. During the period beginning February 1 and ending April 1, a person may apply liquid manure originating from a manure storage structure that is part of a confinement feeding operation on frozen ground only when there is an emergency.

c. What constitutes an emergency. For the purposes of this subrule, an emergency application is only allowed when there is an immediate need to apply manure to comply with the manure retention requirement of subrule 65.2(3) due to unforeseen circumstances affecting the storage of the liquid manure. The unforeseen circumstances must be beyond the control of the owner of the confinement feeding operation, including but not limited to natural disaster, unusual weather conditions, or equipment or structural failure. The authorization to apply liquid manure pursuant to this subrule does not apply to either of the following:

(1) An immediate need to apply manure in order to comply with the manure retention requirement of subrule 65.2(3) caused by the improper design or management of the manure storage structure, including but not limited to a failure to properly account for the volume of the manure to be stored. Based on the restrictions described in paragraphs 65.3(4)*"a"* and *"b"* and the possibility that the ground could be snow-covered and frozen for the entire period of December 21 to April 1, an operation should not plan to apply liquid manure during that time period. Confinement feeding operations without alternatives to manure application must have sufficient storage capacity to retain manure generated from December 21 to April 1 under normal circumstances in order to properly account for the volume of manure to be stored.

(2) Liquid manure originating from a confinement feeding operation constructed or expanded on or after July 1, 2009, if the confinement feeding operation has a capacity to store manure for less than 180 days.

d. Procedure for emergency application. A person who is authorized to apply liquid manure on snow-covered ground or frozen ground when there is an emergency shall comply with all of the following:

(1) The person must notify the appropriate department field office by telephone prior to the application. The department will not consider the notification complete unless the owner's name, facility name, facility ID number, reason for emergency application, application date, estimated number of gallons of manure to be applied, and the size and legal description of the application fields are given. In cases where the emergency is not easily confirmed by weather reports, the owner must make documentation of the emergency available to the field office upon request.

(2) The liquid manure must be applied on land identified for such application in the current manure management plan maintained by the owner of the confinement feeding operation as required in subrule 65.17(12). The land must be identified in the current manure management plan prior to the application, and that change must also be reflected in the next annual update or complete manure management plan submitted to the department and county boards of supervisors following the application as required in paragraph 65.16(3)*"b."*

(3) The liquid manure must be applied on a field with a phosphorus index rating of 2 or less.

(4) Any surface water drain tile intake that is on land in the owner's manure management plan and located downgradient of the application must be temporarily blocked beginning not later than the time that the liquid manure is first applied and ending not earlier than two weeks after the completion of the application. For liquid manure that is applied on snow-covered ground, removal of tile protection prior to the completion of snowmelt is considered a release as defined in 567—65.1(459,459B) and shall be reported as required in subrule 65.2(9).

(5) Additional measures to contain runoff may be necessary in order to prevent violation of federal effluent standards in 567—subrule 62.4(12).

e. Exceptions. Paragraphs 65.3(4)*"a"* through *"d"* do not apply to any of the following:

(1) The application of liquid manure originating from a small animal feeding operation.

(2) The application of liquid manure injected or incorporated into the soil on the same date.

ITEM 10. Amend subrule 65.3(4) as follows:

~~65.3(4)~~ 65.3(5) *Recommended practices.* Except as required by rule in this chapter, the following practices are recommended:

a. and *b.* No change.

c. Manure application on frozen or snow-covered cropland. ~~Manure application~~ Application of dry or liquid manure on frozen or snow-covered cropland should be avoided where possible. If manure application must take place in the winter time, the following are guidelines to minimize runoff and subsequent loss of nutrients. ~~If manure is spread on frozen or snow-covered cropland, application should be limited to areas on which:~~

~~(1) Land slopes are 4 percent or less, or~~

~~(2) Adequate erosion control practices exist. Adequate erosion control practices may include such practices as terraces, conservation tillage, cover crops, contour farming or similar practices.~~

(1) Apply manure to areas where land slopes are 4 percent or less or where control practices are sufficient to prevent runoff from reaching surface water or groundwater during winter.

(2) If applying manure on a terraced field or sloping field, avoid application to areas that drain to tile intakes that directly discharge to surface water or groundwater.

(3) Do not apply manure in grassed waterways.

(4) Apply manure early in winter prior to significant snowfall.

(5) Avoid application near tile intakes, ditches, gullies, areas of concentrated flow, creeks, streams, lakes, and other surface water.

(6) Avoid application near water wells, sinkholes, losing streams, areas with shallow bedrock, agricultural drainage wells, or other pathways to groundwater.

(7) Do not apply manure on top of deeper snow cover, especially in late winter.

(8) Applying manure on soybean stubble where less snow is captured is preferable to applying manure on standing cornstalks.

(9) In late winter, wait until the snow has melted before applying manure.

(10) Avoid application during active runoff events or when rainfall, snow, or warming conditions are predicted that could cause snowmelt or runoff.

(11) Fields and tiles should be observed during snowmelt and runoff events to identify and remediate any runoff that may occur. If discolored or odorous water is being discharged, immediate efforts should be taken to prevent the water from reaching surface water or groundwater and changes should be made to prevent the discharge from recurring. Sampling and analysis of runoff for nitrogen and phosphorus may be used to better evaluate management practices in order to avoid wasting valuable nutrients or causing water quality violations.

d. to *f.* No change.

ITEM 11. Adopt the following **new** subrule 65.3(6):

65.3(6) *Certified manure applicator.* A confinement feeding operation that is required to submit a manure management plan to the department pursuant to rule 567—65.16(459,459B) must use a certified manure applicator as defined in rule 567—65.19(459,459B) for land application of manure.

ITEM 12. Amend rule 567—65.7(459,459B) as follows:

567—65.7(459,459B) Construction permits—required approvals, permits, determinations and declaratory orders. A person required to obtain a construction permit pursuant to subrule 65.7(1) or a construction approval letter pursuant to subrule 65.7(7) shall not begin construction, expansion or modification of a confinement feeding operation structure until the department issues a construction permit or a construction approval letter, as defined in 567—65.1(459,459B), for a proposed or existing confinement feeding operation. In addition, the owner of a small animal feeding operation with formed manure storage structures who is not required to obtain a construction permit pursuant to subrule 65.7(1) or a construction approval letter pursuant to subrule 65.7(7) shall comply with the applicable construction approval requirements pursuant to subrule 65.7(8).

65.7(1) ~~*Animal*~~ *Confinement feeding operations required to obtain a construction permit.*

a. No change.

b. Except as provided in subrule 65.7(2), a confinement feeding operation shall obtain a construction permit prior to any of the following:

(1) Constructing or modifying any unformed manure storage structure, or constructing, installing or modifying a confinement building that uses an unformed manure storage structure.

(2) to (8) No change.

(9) When directed by the department for a remedial change, upgrade, replacement or construction as a result of departmental evaluation pursuant to paragraph 65.5(2)*"b"* or as required by an administrative order or court order pursuant to Iowa Code section 455B.112 or 455B.175.

Repairs to a confinement building or additions such as fans, slats, gates, roofs, or covers do not require a construction permit. In some instances, the department may determine that a construction permit is not required to increase the volume of manure or egg washwater or a modification in the manner in which manure or egg washwater is stored if the increase or modification is deemed insignificant. Plans for repairs or modifications to a manure storage structure shall be submitted to the department to determine if a permit is required.

65.7(2) ~~*Animal*~~ *Confinement feeding operations not required to obtain a construction permit.*

a. A construction permit shall not be required for ~~an animal feeding operation structure used~~ a formed manure storage structure or for a confinement building that uses a formed manure storage structure in conjunction with a small animal feeding operation. However, this paragraph shall not apply to a small animal feeding operation that uses an unformed manure storage structure.

b. A construction permit shall not be required for ~~an animal~~ a confinement feeding operation structure related to research activities and experiments performed under the authority and regulations of a research college.

c. A construction permit is not required to construct a formed manure storage structure at a confinement feeding operation having an animal unit capacity of more than 500 but less than 1,000 animal units; however, a construction approval letter is required from the department pursuant to subrule 65.7(8) and 567—65.9(459,459B).

65.7(3) *Operations that shall not be issued construction permits.*

a. No change.

b. The department shall not issue a construction permit to a person for five years after the date of the last violation committed by a person or confinement feeding operation in which the person holds a controlling interest during which the person or operation was classified as a habitual violator under Iowa Code ~~section 455B.191~~ sections 459.317 and 459.604.

c. The department shall not issue a construction permit to expand or modify a confinement feeding operation for ~~one year~~ 120 days after completion of the last construction or modification at the operation, if a permit was not required for the last construction or modification. ~~The department, upon good cause demonstrated by the applicant, shall grant a waiver to this rule.~~

d. No change.

65.7(4) ~~*Plan*~~ *Construction permit application plan review criteria.* Review of plans and specifications submitted with a construction permit application shall be conducted to determine the potential of the proposed manure control system to achieve the level of manure control being required of the ~~animal~~ confinement feeding operation. In conducting this review, applicable criteria contained in federal law, state law, these rules, Natural Resources Conservation Service design standards and specifications unless inconsistent with federal or state law or these rules, and U.S. Department of Commerce precipitation data shall be used. If the proposed facility plans are not adequately covered by these criteria, applicable criteria contained in current technical literature shall be used.

65.7(5) and **65.7(6)** No change.

65.7(7) ~~*Permit prior to construction*~~ *Confinement feeding operations required to obtain a construction approval letter.* ~~An applicant for a construction permit shall not begin construction at the location of a site planned for the construction of an animal feeding operation structure, including an aerobic structure, until the person has been granted a permit for the construction of the structure by the~~

~~department.~~ A person planning to construct a confinement feeding operation, other than a small animal feeding operation as defined in rule 567—65.1(459,459B) or other than an operation required to obtain a construction permit pursuant to subrule 65.7(1), shall obtain from the department a construction approval letter as provided in subrule 65.9(3) prior to beginning construction of a formed manure storage structure. The construction approval letter shall expire if construction, as defined in subrule 65.8(1), is not begun within one year and completed within four years of the date of the construction approval letter.

65.7(8) *Small animal feeding operations.* The following requirements apply to small animal feeding operations, notwithstanding construction permit exemptions in subrule 65.7(2) and limited separation distance exemptions in rule 567—65.12(459,459B):

a. A person shall not begin construction of a confinement feeding operation structure located on alluvial soil until the department issues a declaratory order pursuant to subrule 65.7(9) that the proposed location is not in the one hundred year flood plain.

b. A person shall not construct a confinement feeding operation structure on a flood plain as provided in rule 567—71.13(455B) until the department issues a flood plain development permit pursuant to 567—Chapters 70 to 76.

c. Confinement feeding operation structures must comply with applicable separation distance requirements in rule 567—65.11(459,459B) and the applicable manure storage structure design requirements in rule 567—65.15(459,459B).

65.7(9) *Declaratory orders and flood plain determinations.* If the location of any proposed confinement feeding operation structure contains soils classified as alluvial determined pursuant to subrule 65.9(4), the owner shall petition the department for a declaratory order or a determination that the confinement feeding operation structure is not in the one hundred year flood plain. To be considered complete, the petition shall include all information necessary, pursuant to 567—Chapters 70 to 76, for the department to determine: (1) if the confinement feeding operation is proposed to be located on a one hundred year flood plain; (2) if a flood plain development permit for the operation is required; and (3) if a flood plain development permit may be issued if one is required. This information may include land surveys to determine elevations of the land within the footprint of the planned operation as well as flood plain and channel geometry. The petition for a declaratory order or determination shall be submitted to the department according to either of the following:

a. If the person is not required to apply for a construction permit pursuant to subrule 65.7(1), the person must petition the department for a declaratory order pursuant to Iowa Code section 17A.9 and 561—Chapter 6. The department shall issue a declaratory order in response to a complete petition, notwithstanding any other provision provided in Iowa Code section 17A.9 to the contrary, within 30 days from the date that the complete petition is filed with the department. The declaratory order shall state whether or not the proposed location is on the one hundred year flood plain. If the proposed location of the confinement feeding operation structure is on the one hundred year flood plain, the department shall prohibit the construction. Exception to this subrule is provided in Iowa Code section 459.310, subsection 4. Even if the proposed location of the confinement feeding operation structure is not on the one hundred year flood plain, the department may require a flood plain development permit pursuant to 567—Chapters 70 to 76.

b. If the person is required to apply for a construction permit pursuant to subrule 65.7(1), the person must petition the department for a determination. The department shall determine if the confinement feeding operation structure is proposed to be located on the one hundred year flood plain. If the proposed location of the confinement feeding operation structure is on the one hundred year flood plain, the department shall disapprove the construction permit. Exception to this subrule is provided in Iowa Code section 459.310, subsection 4. Even if the department makes a determination that the proposed location of the confinement feeding operation structure is not on the one hundred year flood plain, the department may require a flood plain development permit pursuant to 567—Chapters 70 to 76.

65.7(10) *Compliance with permit conditions.* A person who constructs, modifies or expands a confinement feeding operation structure pursuant to a construction permit shall comply with all terms and conditions of the construction permit.

ITEM 13. Amend paragraph **65.8(1)"c"** as follows:

c. Installation of piping for movement of manure within, from or between ~~animal~~ confinement feeding operation structures.

ITEM 14. Amend paragraphs **65.8(3)"b," "d"** and **"e"** as follows:

b. A person shall not construct or expand ~~an animal feeding operation structure which is part of~~ a confinement feeding operation structure for five years after the date of the last violation committed by a person or a confinement feeding operation in which the person holds a controlling interest during which the person or operation was classified as a habitual violator under Iowa Code ~~section 455B.191~~ sections 459.317 and 459.604.

d. A confinement feeding operation structure shall not be constructed on the one hundred year flood plain. Placing fill material on flood plain land to elevate the land above the one hundred year flood level will not be considered as removing the land from the one hundred year flood plain for the purpose of this paragraph. In addition, a person shall not construct a confinement feeding operation structure on a flood plain as provided in rule 567—71.13(455B) until the department issues a flood plain development permit pursuant to 567—Chapters 70 to 76.

e. A person shall not construct a confinement feeding operation structure on land that contains alluvial soils, according to the Soil Survey published by the Natural Resources Conservation Service of the United States Department of Agriculture, and determined according to subrule 65.9(4), unless the person has received a declaratory order or a determination from the department of natural resources that the proposed location of the structure is not on the one hundred year flood plain~~. The declaratory order or determination may be obtained as follows:~~, pursuant to subrule 65.7(9).

~~(1) If the person does not apply for a construction permit as provided in Iowa Code section 459.303 and rule 567—65.9(455B), the person must petition the department for a declaratory order pursuant to Iowa Code section 17A.9 and 561—Chapter 6 to determine whether the location of the proposed confinement feeding operation structure is on the one hundred year flood plain. The person is strongly encouraged to contact the department prior to submitting the petition to determine the nature and extent of information required for the petition to be considered complete. To be considered complete, the petition must include all information pursuant to 567—Chapters 70 to 76 necessary to determine if the confinement feeding operation structure is proposed to be located on a one hundred year flood plain. This information may include land surveys to determine elevations of the land within the footprint of the planned operation as well as flood plain and channel geometry. The department shall issue a declaratory order in response to a complete petition, notwithstanding any other provision provided in Iowa Code section 17A.9 to the contrary, within 30 days from the date that the complete petition is filed with the department. The declaratory order shall state whether or not the proposed location is on the one hundred year flood plain.~~

~~(2) If the person does apply for a construction permit as provided in Iowa Code section 459.303, the person must identify in the application whether or not the land contains alluvial soils. The department shall determine if the confinement feeding operation structure is proposed to be located on the one hundred year flood plain. If the proposed location of the confinement feeding operation structure is on the one hundred year flood plain, the department shall disapprove the construction permit. In the event that the proposed location of the confinement feeding operation structure is not on the one hundred year flood plain, the department may issue a construction permit as provided in Iowa Code section 459.303 and rule 567—65.9(455B) if all other applicable criteria are satisfied.~~

ITEM 15. Adopt the following **new** paragraph **65.8(3)"f"**:

f. A person shall not construct or expand an unformed manure storage structure within an agricultural drainage well area as specified in Iowa Code sections 459.310 and 460.205.

ITEM 16. Amend rule 567—65.9(459,459B) as follows:

567—65.9(459,459B) ~~Construction permit application~~ Preconstruction submittal requirements. Prior to beginning construction, expansion or modification of a confinement feeding operation structure, a person shall obtain from the department a construction permit pursuant to

subrule 65.7(1), a construction approval letter pursuant to subrule 65.7(7) or approval of a secondary containment barrier design pursuant to subrule 65.9(8), according to procedures established in this rule:

65.9(1) ~~*Confinement feeding operations*~~ *Construction permit application.* Application for a construction permit for a confinement feeding operation shall be made on a form provided by the department. The application shall include all of the information required in the form and should be submitted to the department at least 120 days prior to the date the proposed construction is scheduled to begin. At the time the department receives a complete application, the department shall make a determination regarding the approval or denial of the permit ~~within 60 days~~ in accordance with subrule 65.10(5). ~~However, the 60-day requirement shall not apply to an application if the applicant is not required to obtain a permit.~~ A construction permit application for a confinement feeding operation shall be filed as instructed on the form and shall include ~~at least~~ the following:

a. The ~~owner~~ name of the applicant and the name of the confinement feeding operation, including mailing address and telephone number.

b. and *c.* No change.

d. Whether the application is for the expansion of an existing operation or the construction of a proposed confinement feeding operation, and the date when it was first constructed if an existing operation.

e. The animal unit capacity by animal species of the current confinement feeding operation to be expanded, if applicable, and of the proposed confinement feeding operation. If the confinement feeding operation includes a confinement feeding operation structure that was constructed prior to March 1, 2003, the animal weight capacity by animal species of the current confinement feeding operation to be expanded, if applicable, and of the proposed confinement feeding operation shall also be included.

f. ~~For a manure storage structure in which manure is stored in a liquid or semiliquid form or for an egg washwater storage structure,~~ Engineering documents. A confinement feeding operation that utilizes an unformed manure storage structure, an egg washwater storage structure or a formed manure storage structure at an operation that meets the threshold requirements for an engineer as defined in 567—65.1(459,459B) shall include an engineering report, construction plans and specifications~~, prepared~~. The engineering report, construction plans and specifications must be prepared and signed by a licensed professional engineer or by an engineer working for the Natural Resources Conservation Service (NRCS) ~~personnel, that~~, must detail the proposed structures, and must include a statement certifying that the manure storage structure complies with the requirements of Iowa Code chapter 459. In addition, a qualified soils or groundwater professional shall submit a hydrogeologic report on soil corings in the area of the unformed manure storage structure or egg washwater storage structure as described in subrules 65.15(6) to 65.15(13).

g. ~~A report on soil corings in the area of the aerobic structure, anaerobic lagoon, egg washwater storage structure, or manure storage basin, as described in subrule 65.17(6), if an earthen lagoon, structure or basin is being constructed.~~ Construction design statement or professional engineer design certification. A confinement feeding operation that uses a formed manure storage structure and that is below the threshold requirements for an engineer as defined in 567—65.1(459,459B) shall submit a construction design statement pursuant to subrule 65.9(6) or a professional engineer design certification pursuant to subrule 65.9(7).

h. Payment to the department of the indemnity fund fee as required in Iowa Code section ~~455J.3~~ 459.502.

i. If the ~~confinement feeding operation contains~~ construction permit application is for three or more ~~animal~~ confinement feeding operation structures, a drainage tile certification shall be submitted as follows:

(1) If the application is for an unformed manure storage structure, an egg washwater storage structure or a formed manure storage structure that meets the threshold engineering requirements as defined in 567—65.1(459,459B), a licensed professional engineer shall certify that either the construction of the structure will not impede the drainage through established drainage tile lines which cross property boundary lines or that if the drainage is impeded during construction, the drainage tile will be rerouted to reestablish the drainage prior to operation of the structure.

(2) If the application is for a formed manure storage structure that does not meet the threshold engineering requirements, a drainage tile certification shall be submitted as part of the construction design statement pursuant to subrule 65.9(6) or the professional engineer design certification pursuant to subrule 65.9(7).

j. Information (e.g., maps, drawings, aerial photos) that clearly shows the proposed location of the ~~animal~~ confinement feeding operation structures, any existing confinement feeding operation structures, any locations or objects from which a separation distance is required by Iowa Code sections ~~455B.162 and 455B.204~~ 459.202, 459.203 and 459.310, and that the structures will meet all applicable separation distances. For an unformed manure storage structure, an egg washwater storage structure or a formed manure storage structure that meets the threshold requirements for an engineer as defined in 567—65.1(459,459B), the maps, drawings or aerial photos must be signed by a professional engineer licensed in Iowa. If applicable, a copy of a recorded separation distance waiver, pursuant to paragraph 65.12(1)*"b,"* must be included with the application. Also, if applicable, a secondary containment barrier design, pursuant to subrules 65.9(8) and 65.12(7), shall be included.

k. No change.

l. ~~Documentation that a copy~~ Copies of the ~~permit application and~~ manure management plan ~~has been provided to the county board of supervisors or county auditor in the county where the operation or structure subject to the permit is to be located, and documentation of the date received by the county~~ pursuant to 567—65.16(459,459B).

m. A ~~fee of $500, consisting of a~~ construction permit application fee of $250 and, if applicable, the manure management plan filing fee of $250 as required in ~~65.16(6)~~ subrule 65.16(7).

n. No change.

o. ~~Information necessary for the department to determine: (1) if the confinement feeding operation is proposed to be located on a one hundred year flood plain; (2) if a flood plain development permit for the operation is required; and (3) if a flood plain development permit may be issued if one is required, pursuant to 567—Chapters 70 to 76. This information may include land surveys to determine elevations of the land within the footprint of the planned operation as well as flood plain and channel geometry.~~ Soil information indicating whether the proposed location contains soils classified as alluvial, pursuant to subrule 65.9(4). If the proposed location contains soils classified as alluvial, a copy of the department's determination that the proposed location is not in a one hundred year flood plain, and a flood plain development permit pursuant to 567—Chapters 70 to 76, if required, shall be included.

p. A copy of any master matrix evaluation provided to the county.

q. Information indicating whether the proposed location is in karst terrain pursuant to subrule 65.9(5). If the proposed location is in karst terrain, a soils exploration study or a statement from qualified department staff that a soils exploration study is not needed shall be included.

r. A livestock odor mitigation evaluation certificate issued by Iowa State University as provided in Iowa Code section 266.49. The applicant is not required to submit the certificate if any of the following applies:

(1) The confinement feeding operation is twice the minimum separation distance required from the nearest object or location from which a separation distance is required pursuant to Iowa Code section 459.202 on the date of the application, not including a public thoroughfare.

(2) The owner of each object or location which is less than twice the minimum separation distance required pursuant to Iowa Code section 459.202 from the confinement feeding operation on the date of the application, other than a public thoroughfare, executes a document consenting to the construction.

(3) The applicant submits a document swearing that Iowa State University has failed to furnish a certificate to the applicant within 45 days after the applicant requested the University to conduct a livestock odor mitigation evaluation as provided in Iowa Code section 266.49.

(4) The application is for a permit to expand a confinement feeding operation, if the confinement feeding operation was first constructed before January 1, 2009.

(5) Iowa State University does not provide for a livestock odor mitigation evaluation effort as provided in Iowa Code section 266.49, for any reason, including because funding is not available.

s. Documentation that copies of all the construction permit application documents have been provided to the county board of supervisors or county auditor in the county where the operation or structure subject to the permit is to be located, and documentation of the date received by the county.

65.9(2) No change.

65.9(3) *Construction approval letter.* A confinement feeding operation that, pursuant to subrule 65.7(7), is required to obtain a construction approval letter as defined in 567—65.1(459,459B), but that is not required to obtain a construction permit pursuant to subrule 65.7(1), shall file with the department, at least 30 days prior to the date the proposed construction is scheduled to begin, all of the following:

a. A construction design statement pursuant to subrule 65.9(6). In lieu of a construction design statement, a professional engineer design certification pursuant to subrule 65.9(7) may be submitted.

b. The results of the alluvial soils information pursuant to subrule 65.9(4) or a copy of the department's declaratory order that the location is not in the one hundred year flood plain pursuant to paragraph 65.8(3)*"e"* and a copy of the department's flood plain development permit pursuant to 567—Chapters 70 to 76, if required.

c. The results of the karst terrain determination pursuant to subrule 65.9(5).

d. A copy of the manure management plan pursuant to 567—65.16(459,459B).

e. Information (e.g., maps, drawings, aerial photos) that clearly shows the intended location of the confinement feeding operation structures and animal weight capacities of any other confinement feeding operations within a distance of 2,500 feet in which the owner has an ownership interest or which the owner manages.

f. A fee of $250 for filing a manure management plan pursuant to subrule 65.16(7) and a manure storage indemnity fee pursuant to subrule 65.16(6).

g. Documentation that the board of supervisors or auditor of the county where the confinement feeding operation structure is proposed to be located received a copy of the manure management plan.

65.9(4) *Alluvial soils submittal requirements.* Prior to beginning construction or expansion of a confinement feeding operation, the person planning the construction shall determine whether the proposed confinement feeding operation structure will be located in soils classified as alluvial, as defined in 567—65.1(459,459B) and pursuant to paragraph 65.8(3)*"e."* The alluvial soils determination shall be obtained by using the AFO Siting Atlas located at the department's official Web site, or by consulting a qualified department staff person, a soils professional normally engaged in the practice of soil investigation, or a qualified staff person of the USDA Natural Resources Conservation Service (NRCS). The alluvial soils determination shall be submitted to the department according to the following:

a. If the proposed location is not in alluvial soils, the person planning the construction shall submit a printed map from the AFO Siting Atlas clearly showing the location of each proposed confinement feeding operation structure or a written statement from qualified department staff, a soils professional normally engaged in the practice of soil investigation or a qualified staff person of the USDA NRCS with the construction permit application documents as required in subrule 65.9(1) or with the construction design statement as required in subrule 65.9(3) if a construction permit is not required.

b. If the proposed location is in alluvial soils, the person planning the construction shall petition the department for a declaratory order or a determination according to procedures required in subrule 65.7(9). It is recommended that the person planning the construction consult with qualified department staff before petitioning for a declaratory order or a determination. The department's determination indicating that the location is not in the one hundred year flood plain and a copy of the department's flood plain development permit pursuant to 567—Chapters 70 to 76, if required, must be submitted with the construction permit application documents pursuant to subrule 65.9(1). If a construction permit is not required pursuant to subrule 65.7(1), the department's declaratory order indicating that the location is not in the one hundred year flood plain and a copy of the department's flood plain development permit pursuant to 567—Chapters 70 to 76, if required, must be submitted when a construction design statement is filed pursuant to subrules 65.9(3) and 65.9(6).

65.9(5) *Karst terrain submittal requirements.* Prior to beginning construction of a confinement feeding operation, the person planning the construction shall determine whether the proposed confinement feeding operation structure will be located in karst terrain, as defined in

567—65.1(459,459B). The karst terrain determination shall be obtained by using the AFO Siting Atlas located at the department's official Web site or by consulting a qualified department staff person, a soils professional normally engaged in the practice of soil investigation or a qualified staff person of the USDA Natural Resources Conservation Service (NRCS). The results of the karst terrain determination shall be submitted to the department according to the following:

a. If the proposed location is not in karst terrain, the person planning the construction, other than a small animal feeding operation, shall submit a printed map from the AFO Siting Atlas clearly showing the location of each proposed confinement feeding operation structure or a written statement by a qualified department staff person, a soils professional normally engaged in the practice of soil investigation or a qualified staff person of the USDA Natural Resources Conservation Service (NRCS) with the construction permit application documents pursuant to subrule 65.9(1) or with the construction design statement pursuant to subrule 65.9(3) if a construction permit is not required.

b. If the proposed location is in karst terrain, the person planning the construction shall submit a printed map from the AFO Siting Atlas clearly showing the location of each proposed confinement feeding operation structure and a copy of the soils exploration study required in paragraph 65.15(14)*"c"* with the construction permit application pursuant to subrule 65.9(1) or with the construction design statement pursuant to subrule 65.9(3) if a construction permit is not required. In lieu of a printed map, a statement from a qualified department staff person, a soils professional normally engaged in the practice of soil investigation or a qualified staff person of the USDA Natural Resources Conservation Service (NRCS) explaining the karst terrain determination, may be submitted. It is recommended that the person planning the construction consult with a qualified staff person of the department before obtaining the soil borings. A formed manure storage structure other than a small animal feeding operation shall be constructed according to the upgraded concrete standards set forth in paragraph 65.15(14)*"c"* or Iowa Code section 459.307 if the structure is not constructed of concrete. Nonetheless, construction of an unformed manure storage structure in karst terrain is prohibited.

65.9(6) *Construction design statement.* Prior to beginning construction of a formed manure storage structure, a person planning construction at a confinement feeding operation, other than a small animal feeding operation that is below the threshold requirements for an engineer as defined in 567—65.1(459,459B), shall file with the department a construction design statement, as follows:

a. A confinement feeding operation with an animal unit capacity of more than 500 but less than 1,000 animal units that is required to obtain a construction approval letter from the department pursuant to subrule 65.7(7) but that is not required to obtain a construction permit pursuant to subrule 65.7(1) shall file with the department a construction design statement, as required in subrule 65.9(3). Within 30 days after filing of a construction design statement, the department may issue a construction approval letter as defined in 567—65.1(459,459B) if the proposed formed manure storage structure meets the requirements of this chapter.

b. A confinement feeding operation that has an animal unit capacity of 1,000 animal units or more but that is below the threshold requirements for an engineer as defined in 567—65.1(459,459B) shall file a construction design statement as part of the construction permit application and as required in subrule 65.9(1).

c. The construction design statement shall be filed on a form provided by the department and shall include all of the following:

(1) The name of the person planning construction at the confinement feeding operation, the name of the confinement feeding operation, the location of the proposed formed manure storage structure, a detailed description of the type of confinement feeding operation structure being proposed, the dimensions of the structure, and whether the structure will be constructed of reinforced concrete or steel.

(2) A manure management plan pursuant to 567—65.16(459,459B).

(3) A certification signed by the person responsible for constructing the formed manure storage structure that the proposed formed manure storage structure will be constructed according to the minimum concrete standards set forth in subrule 65.15(14). Otherwise, if the formed manure storage structure is to be constructed of steel, including a Slurry Store tank, a certification signed by the person responsible for constructing the formed manure storage structure that the proposed formed manure

storage structure will be constructed according to the requirements of Iowa Code chapter 459 and 567—Chapter 65.

(4) If the confinement feeding operation is also required to obtain a construction permit at a confinement feeding operation proposing three or more confinement feeding operation structures, the construction design statement shall include a drainage tile certification signed by the person responsible for constructing or excavating the formed manure storage structure, shall certify that construction will not impede established existing drainage, and shall verify that if existing drainage tiles are found, corrective actions will be implemented to immediately reestablish existing drainage.

d. The following operations are not required to file a construction design statement with the department:

(1) A small animal feeding operation that constructs a formed manure storage structure.

(2) A confinement feeding operation that submits a professional engineer design certification pursuant to subrule 65.9(6).

(3) A confinement feeding operation that meets or exceeds threshold requirements for an engineer as defined in 567—65.1(459,459B).

(4) A confinement feeding operation that utilizes an unformed manure storage structure or an egg washwater storage structure.

65.9(7) *Professional engineer design certification.* In lieu of a construction design statement prior to beginning construction of a formed manure storage structure, a confinement feeding operation, other than a small animal feeding operation, that is below the threshold requirements for an engineer pursuant to 567—65.1(459,459B) may file with the department a professional engineer design certification signed by a professional engineer licensed in the state of Iowa or by an engineer working for the USDA Natural Resources Conservation Service (NRCS). The professional engineer design certification shall be site-specific and shall be filed on a form provided by the department as follows:

a. A confinement feeding operation with an animal unit capacity of more than 500, but less than 1,000, animal units that is not required to obtain a construction permit pursuant to subrule 65.7(1) shall file with the department, at least 30 days before beginning construction of a formed manure storage structure, the professional engineer design certification as required in subrule 65.9(3). Within 30 days after filing of a professional engineer design certification, the department may issue a construction approval letter if the proposed formed manure storage structure meets the requirements of this chapter.

b. A confinement feeding operation with an animal unit capacity of 1,000 animal units or more that is required to obtain a construction permit pursuant to subrule 65.7(1) but that is below the threshold requirements for an engineer pursuant to 567—65.1(459,459B) shall file with the department the professional engineer design certification as part of the construction permit application and as required in subrule 65.9(1).

65.9(8) *Secondary containment barrier design submittal requirements.* The design for a secondary containment barrier to qualify any confinement feeding operation for the separation distance exemption provision in subrule 65.12(7) shall be filed with the department for approval prior to beginning construction of a formed manure storage structure that is part of a small animal feeding operation, shall accompany the construction design statement pursuant to subrule 65.9(3) if a construction permit is not required, or shall be filed as part of the construction permit application pursuant to subrule 65.9(1). The secondary containment barrier shall meet the design standards of subrule 65.15(17) and shall be prepared according to the following:

a. If a manure storage structure stores liquid or semi-liquid manure, the secondary containment barrier design shall include engineering drawings prepared and signed by a professional engineer licensed in the state of Iowa or by an engineer working for the USDA Natural Resources Conservation Service (NRCS).

b. If the manure storage structure will store only dry manure, the owner or a representative of a confinement feeding operation shall submit to the department detailed drawings of the design for a secondary containment barrier.

ITEM 17. Amend paragraph **65.10(2)"b"** as follows:

b. County comment. Regardless of whether the county board of supervisors has adopted a construction evaluation resolution, the board may submit to the department comments by the board and the public regarding compliance of the construction permit application and manure management plan with the requirements in this chapter and Iowa Code chapter ~~455B~~ 459 for obtaining a construction permit. Comments may include, but are not limited to, the following:

(1) The existence of an object or location not included in the construction permit application which benefits from a separation distance requirement as provided in Iowa Code section ~~455B.162~~ 459.202 or ~~455B.204~~ 459.310.

(2) to (4) No change.

ITEM 18. Amend paragraphs **65.10(3)"a"** and **"b"** as follows:

a. Enrollment periods.

~~(1) For evaluation of construction permit applications filed during the period March 1, 2003, through January 31, 2004, the county board of supervisors must file an adopted construction evaluation resolution with the department between February 1, 2003, and February 28, 2003.~~

~~(2) For evaluation of construction permit applications filed during the period February 1, 2004, through January 31, 2005, the county board of supervisors must file an adopted construction evaluation resolution with the department between January 1, 2004, and January 31, 2004.~~

~~(3)~~ (1) ~~For evaluation of construction permit applications filed during subsequent annual periods, each beginning on February 1 and ending on January 31 one calendar year later, the county board of supervisors must file an adopted construction evaluation resolution with the department between January 1 and January 31 immediately prior to the commencement of the applicable annual period.~~ The county board of supervisors must file an adopted construction evaluation resolution with the department between January 1 and January 31 of each year, to evaluate construction permit applications received by the department between February 1 of that year and January 31 of the following year.

~~(4)~~ (2) Filed construction evaluation resolutions shall remain in effect until the applicable enrollment period expires or until such time as the county board of supervisors files with the department a resolution rescinding the construction evaluation resolution, whichever is earlier.

~~(5)~~ (3) Filing of an adopted construction evaluation resolution requires a county board of supervisors to conduct an evaluation of a construction permit application using the master matrix. However, if the board fails to submit an adopted recommendation to the department~~,~~ or fails to comply with the evaluation requirements in 65.10(3)*"b,"* the department shall disregard any adopted recommendation from that board until the board timely submits a new construction evaluation resolution.

b. Use of the master matrix. If a county board of supervisors has adopted and filed with the department a construction evaluation resolution, as provided in paragraph 65.10(3)*"a,"* the board shall evaluate all construction permit applications filed during the applicable period using the master matrix as follows:

(1) In completing the master matrix, the board shall not score criteria on a selective basis. The board must score all criteria which are part of the master matrix according to the terms and conditions relating to construction as specified in the application or commitments for manure management that are to be incorporated into a manure management plan as provided in Iowa Code section ~~455B.203~~ 459.312 as amended by 2009 Iowa Acts, Senate File 432, section 2.

(2) and (3) No change.

ITEM 19. Amend rule 567—65.11(459,459B) as follows:

567—65.11(459,459B) Confinement feeding operation and stockpile separation distance requirements. All ~~animal~~ confinement feeding operation structures, stockpiles and stockpile structures shall be separated from locations and objects as specified in this rule regardless of whether a construction permit is required. The separation distance requirements of this rule shall apply to all confinement feeding operation structures, unless specifically stated otherwise. If two or more

confinement feeding operations are considered one operation as provided in 567—65.1(459,459B), definitions of "Adjacent—air quality" and "Adjacent—water quality," the combined animal unit capacities of the individual operations shall be used for the purpose of determining the required separation. ~~Exceptions~~ Exemptions to the following requirements are allowed to the extent provided in 567—65.12(459,459B).

65.11(1) *Separation distance from residences, businesses, churches, schools and public use areas for new confinement feeding operations.* Separation from residences, businesses, churches, schools~~,~~ and public use areas~~, and thoroughfares~~ shall be as specified in Iowa Code section ~~455B.162~~ 459.202 and summarized in Table 6 at the end of this chapter. The residence, business, church, school~~,~~ or public use area ~~or thoroughfare~~ must exist at the time an applicant submits an application for a construction permit to the department ~~or~~, at the time a manure management plan ~~is submitted~~ or construction design statement is filed with the department if a construction permit is not required, or at the time construction of the ~~animal~~ confinement feeding operation structure begins if a construction permit or ~~manure management plan~~ construction approval letter is not required.

65.11(2) *Separation distance from residences, businesses, churches, schools and public use areas for the expansion of prior constructed operations.* Except as provided in 567—65.12(459,459B) or as specified in Iowa Code section 459.203, an existing confinement feeding operation may be expanded if any of the following applies:

a. For a confinement feeding operation constructed prior to January 1, 1999, any construction or expansion of a confinement feeding operation structure complies with the distance requirements applying to that structure as provided in Iowa Code section 459.202, subsections 1 and 3, and summarized in Tables 6c (for swine, sheep, horses and poultry) and 6d (for beef and dairy cattle) at the end of this chapter.

b. For a confinement feeding operation constructed on or after January 1, 1999, but prior to March 1, 2003, any construction or expansion of a confinement feeding operation structure complies with the distance requirements applying to that structure as provided in Iowa Code section 459.202, subsections 2 and 3, and summarized in Tables 6a (for swine, sheep, horses and poultry) and 6b (for beef and dairy cattle) at the end of this chapter.

c. For a confinement feeding operation constructed on or after March 1, 2003, any construction or expansion of a confinement feeding operation structure complies with the distance requirements applying to that structure as provided in Iowa Code section 459.202, subsections 4 and 5, and summarized in Table 6 at the end of this chapter.

~~**65.11(2)**~~ **65.11(3)** *Separation distance from water sources, major water sources, known sinkholes and agricultural drainage wells.* Separation distances specified in this subrule shall apply to any confinement feeding operation structure, including a small animal feeding operation. Separation distances from any confinement feeding operation structure to surface intakes, wellheads or cisterns of agricultural drainage wells, known sinkholes, water sources and major water sources shall be as specified in Iowa Code section 459.310 and summarized in ~~Table~~ Tables 6 to 6d at the end of this chapter. For the required separation distance to a major water source to apply, the major water source must be included in Table 1 at the end of this chapter at the time an applicant submits an application for a construction permit to the department, ~~or~~ at the time a manure management plan ~~is submitted~~ or construction design statement is filed with the department if a construction permit is not required, or at the time construction of the animal feeding operation structure begins (as defined in 65.8(1)) if a construction permit, ~~or~~ manure management plan or construction design statement is not required.

~~**65.11(3)**~~ **65.11(4)** *Separation distance from designated wetlands.* Separation distances specified in this subrule shall apply to any confinement feeding operation structure, including a small animal feeding operation. A confinement feeding operation structure shall not be constructed closer than 2,500 feet away from a "designated wetland" as defined and referenced in rule 567—65.1(459,459B). This requirement shall not apply to a confinement feeding operation structure if any of the following occur before the wetland is included in "Designated Wetlands in Iowa," effective August 23, 2006:

a. to *d.* No change.

~~65.11(4)~~ 65.11(5) *Separation distance from water wells.* For a confinement feeding operation ~~structures~~ structure constructed after March 20, 1996, the separation distance to water wells shall be as specified in ~~Table~~ Tables 6 to 6d at the end of this chapter.

~~**65.11(5)** Unformed manure storage structures shall not be constructed or expanded in an agricultural drainage well area as specified in Iowa Code section 455I.5.~~

65.11(6) *Separation distance from public thoroughfares.* A confinement feeding operation structure shall not be constructed or expanded within 100 feet from a public thoroughfare.

65.11(7) *Stockpile and stockpile structures—separation distance from residences.* A stockpile or stockpile structure shall not be placed closer than 1,250 feet from a residence not owned by the titleholder of the land where the stockpile is located, a commercial enterprise, a bona fide religious institution, an educational institution, or a public use area.

65.11(8) *Stockpile and stockpile structures—separation distance from terrace tile inlets, designated areas, high-quality water resources, agricultural drainage wells and known sinkholes.* A stockpile or stockpile structure shall not be placed within the following distances from any of the following:

a. A terrace tile inlet or surface tile inlet, 200 feet, unless the dry manure is stockpiled in a manner that does not allow precipitation-induced runoff to drain from the stockpile to the terrace tile inlet or surface tile inlet. A terrace tile inlet or surface tile inlet does not include a tile inlet that is not directly connected to a tile line that discharges directly into a water of the state.

b. Designated area, 400 feet. However, an increased separation distance of 800 feet shall apply to all of the following:

(1) A high-quality water resource.

(2) An agricultural drainage well.

(3) A known sinkhole.

c. Paragraph 65.11(8)*"b"* does not apply if dry manure is stockpiled in a manner that does not allow precipitation-induced runoff to drain from the stockpile to the designated area.

~~65.11(6)~~ 65.11(9) *Measurement of separation distances.* ~~The~~ Except as provided in paragraph *"f,"* the distance between ~~animal~~ confinement feeding operation structures and locations or objects from which separation is required shall be measured horizontally by standard survey methods between the closest point of the location or object (not a property line) and the closest point of the ~~animal~~ confinement feeding operation structure. The department may require that a separation distance be measured and certified by a licensed land surveyor, a professional engineer licensed in the state of Iowa, or an engineer working for the USDA Natural Resources Conservation Service (NRCS) in cases where the department cannot confirm a separation distance.

a. Measurement to an ~~anaerobic lagoon or earthen~~ unformed manure storage ~~basin~~ structure shall be to the point of maximum allowable level of manure pursuant to paragraph 65.2(3)*"b."*

b. No change.

c. Measurement to a major water source or ~~watercourse~~ water source shall be to the top of the bank of the stream channel of a river or stream or the ordinary high water mark of a lake, ~~or~~ reservoir or designated wetland.

d. Measurement to a public thoroughfare shall be to the closest point of the right-of-way.

e. The separation distance for ~~an animal~~ a confinement feeding operation structure qualifying for the exemption to separation distances under ~~65.12(3)*"b"*(1)~~ paragraphs 65.12(4)*"b"* and *"c"* shall be measured from the closest point of the ~~animal~~ confinement feeding operation structure ~~which is constructed or expanded after December 31, 1998~~.

f. Measurement to a cemetery shall be to the closest point of its property line.

g. Measurement to a stockpile shall be to the closest point of the stockpile.

ITEM 20. Amend rule 567—65.12(459,459B) as follows:

567—65.12(459,459B) Exemptions and variances to confinement feeding operation, stockpile and stockpile structure separation distance requirements and prohibition of construction on the one hundred year flood plain.

65.12(1) *Exemptions to separation distance requirements from a residence, business, church, school and public use area.* As specified in Iowa Code section ~~455B.165~~ 459.205 as amended by 2009 Iowa Acts, House File 735, section 4, the separation distances required from residences, businesses, churches, schools~~,~~ and public use areas ~~and thoroughfares~~ specified in Iowa Code section ~~455B.162~~ 459.202 and section 459.204B as amended by 2009 Iowa Acts, House File 735, section 3, and ~~summarized in Table~~ required in subrules 65.11(1), 65.11(2) and 65.11(7), including Tables 6 to 6d at the end of this chapter shall not apply to the following:

~~*a.* A confinement feeding operation structure which stores manure exclusively in a dry form.~~

~~*b.*~~ *a.* A confinement feeding operation structure, other than an unformed manure storage structure, if the structure is part of a small animal feeding operation or the stockpile consists of dry manure originating from a small animal feeding operation.

~~*c.*~~ *b.* ~~An animal~~ A confinement feeding operation structure which is constructed or expanded, if the titleholder of the land benefiting from the distance separation requirement executes a written waiver with the titleholder of the land where the structure, stockpile or stockpile structure is located, under such terms and conditions that the parties negotiate. The written waiver becomes effective only upon the recording of the waiver in the office of the recorder of deeds of the county in which the benefited land is located. The benefited land is the land upon which is located the residence, business, church, school or public use area from which separation is required. The filed waiver shall preclude enforcement by the department of the separation distance requirements of Iowa Code section ~~455B.162~~ 459.202. A copy of the recorded waiver shall be submitted with the construction design statement pursuant to subrule 65.9(3) if a construction permit is not required, or as part of the construction permit application documents pursuant to subrule 65.9(1).

~~*d.*~~ *c.* ~~An animal~~ A confinement feeding operation structure which is constructed or expanded closer than the separation distances required in subrules 65.11(1) and 65.11(2), including ~~in Table~~ Tables 6 to 6d at the end of this chapter, ~~from a~~ if the residence, business, church~~,~~ or school was constructed or expanded after the date that the confinement feeding operation commenced operating or if the boundaries of the public use area or the city ~~, if the residence, business, church, school or public use area was constructed or~~ expanded after the date that the ~~animal~~ confinement feeding operation commenced operating. ~~An animal~~ A confinement feeding operation commences operating when it is first occupied by animals. A change in ownership or expansion of the ~~animal~~ confinement feeding operation does not change the date the operation commenced operating.

d. The stockpile consists of dry manure originating exclusively from a confinement feeding operation that was constructed before January 1, 2006, unless the confinement feeding operation is expanded after that date.

65.12(2) *Exemptions to separation distance requirements from public thoroughfares.* As specified in Iowa Code section ~~455B.165(4)~~ 459.205 as amended by 2009 Iowa Acts, House File 735, section 4, the separation required from thoroughfares specified in Iowa Code section ~~455B.162(5)~~ 459.202 and summarized in ~~Table~~ Tables 6 to 6d at the end of this chapter shall not apply ~~if permanent vegetation stands between the animal feeding operation structure and that part of the right-of-way from which separation is required. The permanent vegetation must be at least seedlings of plants with mature height of at least 20 feet and stand along the full length of the structure. The minimum vegetation requirement shall be a single row of conifers or columnar deciduous trees on 12- to 16-foot spacing. It is recommended that the advice of a professional forester or nursery stock expert, a department district forester or the Natural Resource Conservation Service be sought to identify tree species for a specific site.~~ to any of the following:

a. A confinement building or a formed manure storage structure that is part of a small animal feeding operation. However, the exemptions of this subrule shall not apply if the confinement feeding operation structure is an unformed manure storage structure.

b. If the state or a political subdivision constructing or maintaining the public thoroughfare executes a written waiver with the titleholder of the land where the confinement feeding operation structure is located. The written waiver becomes effective only upon the recording of the waiver in the office of the recorder of deeds of the county in which the benefited land is located. The recorded waiver shall be submitted with the construction design statement pursuant to subrule 65.9(3) if a construction permit is not required, or as part of the construction permit application documents pursuant to subrule 65.9(1).

65.12(3) *Exemptions to separation distance requirements for prior constructed operations and for operations that expand based on prior separation distance requirements.* As specified in Iowa Code section 459.203, a confinement feeding operation constructed or expanded prior to the date that a distance requirement became effective under Iowa Code section 459.202 and which does not comply with the statute's distance requirement may continue to operate regardless of the distance requirement and may expand as provided in subrule 65.11(2). ~~As specified in Iowa Code section 455B.163, the separation required from residences, businesses, churches, schools, public use areas and thoroughfares specified in Iowa Code section 455B.162 and summarized in Table 6 at the end of this chapter shall not apply to confinement feeding operations constructed before the effective date of the separation distance in the following cases:~~

~~*a.* The confinement feeding operation continues to operate, but does not expand.~~

~~*b.* The animal feeding operation structure as constructed or expanded prior to January 1, 1999, complies with the distance requirements applying to that structure at the time of construction or expansion.~~

~~*c.* The confinement feeding operation expands on or after January 1, 1999, and any of the following apply:~~

~~(1) The animal feeding operation structure as constructed or expanded complies with the separation requirements. The separation required shall be based on the animal weight capacity of the entire confinement feeding operation, including existing and proposed structures.~~

~~(2) All of the following apply to the expansion:~~

~~1. No portion of the confinement feeding operation after expansion is closer than before expansion to a location or object for which separation is required.~~

~~2. The animal weight capacity of the confinement feeding operation which did not comply with a separation requirement that went into effect on May 31, 1995, after expansion is not more than the lesser double its capacity on May 31, 1995, or of 625,000 pounds for animals other than bovine, or 1,600,000 pounds for bovine.~~

~~3. The animal weight capacity of a confinement feeding operation which complied with the separation requirements that went into effect on May 1, 1995, but did not comply with a separation requirement that went into effect on January 1, 1999, after expansion is not more than the lesser of double its capacity on January 1, 1999, or 625,000 pounds for animals other than bovine, or 1,600,000 pounds for bovine.~~

~~(3) The confinement feeding operation is expanded by replacing one or more unformed manure storage structures with one or more formed manure storage structures and all of the following apply:~~

~~1. The animal weight capacity of the portion of the operation that changes from unformed to formed manure storage does not increase.~~

~~2. Use of the replaced unformed manure storage structures is discontinued within one year after construction of the replacement formed manure storage structures.~~

~~3. The replacement formed manure storage structures do not provide more than 14 months of manure storage.~~

~~4. No portion of the operation after expansion is closer than before expansion to a location or object for which separation is required.~~

~~(NOTE: A construction permit is not required to construct the replacement formed manure storage structures if a permit would not be required for the construction if the unformed manure storage structures did not exist.)~~

65.12(4) *Exemptions to separation distance requirements for prior constructed operations that expand and cannot comply with prior separation distance requirements.* As specified in Iowa Code section 459.203, a confinement feeding operation constructed or expanded prior to the date that a distance requirement became effective under Iowa Code section 459.202 and which does not comply with the distance requirements established in 567—65.11(459,459B) and the exemption in subrule 65.12(3) may be expanded if all of the following apply to the expansion:

a. No portion of the confinement feeding operation after expansion is closer than before expansion to a location or object for which separation is required in Iowa Code section 459.202.

b. For a confinement feeding operation that includes a confinement feeding operation structure constructed prior to March 1, 2003, the animal weight capacity of the confinement feeding operation as expanded is not more than the lesser of the following:

(1) Double its animal weight capacity on the following dates:

1. May 31, 1995, for a confinement feeding operation that includes a confinement feeding operation structure constructed prior to January 1, 1999.

2. January 1, 1999, for a confinement feeding operation that only includes a confinement feeding operation structure constructed on or after January 1, 1999, but does include a confinement feeding operation structure constructed prior to March 1, 2003.

(2) Either of the following:

1. An animal weight capacity of 625,000 pounds for animals other than cattle.

2. An animal weight capacity of 1,600,000 pounds for cattle.

c. For a confinement feeding operation that does not include a confinement feeding operation structure constructed prior to March 1, 2003, the animal unit capacity of the confinement feeding operation as expanded is not more than the lesser of the following:

(1) Double its animal unit capacity on March 1, 2003.

(2) 1,000 animal units.

65.12(5) *Exemptions to separation distance requirements for prior constructed operations that replace an unformed manure storage structure.* As specified in Iowa Code section 459.203, a confinement feeding operation that includes a confinement feeding operation structure that is constructed prior to March 1, 2003, may be expanded by replacing one or more unformed manure storage structures with one or more formed manure storage structures if all of the following apply:

a. The animal weight capacity or animal unit capacity, whichever is applicable, is not increased for that portion of the confinement feeding operation that utilizes all replacement formed manure storage structures.

b. Use of each replaced unformed manure storage structure is discontinued within one year after the construction of the replacement formed manure storage structure.

c. The capacity of all replacement formed manure storage structures does not exceed the amount required to store manure produced by that portion of the confinement feeding operation utilizing the formed manure storage structures during any 14-month period.

d. No portion of the replacement formed manure storage structure is closer to an object or location for which separation is required under Iowa Code section 459.202 than any other confinement feeding operation structure which is part of the operation.

~~**65.12(4)**~~ **65.12(6)** *Exemption to separation distance requirements from cemeteries.* As specified in Iowa Code section ~~455B.165(7)~~ 459.205 as amended by 2009 Iowa Acts, House File 735, section 4, the separation distance required ~~from~~ between a confinement feeding operation structure and a cemetery shall not apply ~~to animal feeding operations structures on which construction or expansion began before January 1, 1999.~~ if any of the following applies:

a. The confinement feeding operation structure was constructed or expanded prior to January 1, 1999.

b. The construction or expansion of the confinement feeding operation structure began prior to January 1, 1999.

~~65.12(5)~~ 65.12(7) *Exemptions to separation distance requirements from water sources, major water sources, known sinkholes, agricultural drainage wells and designated wetlands and secondary containment.* As specified in Iowa Code section ~~455B.204(3)~~ 459.310, subsection 3, the separation distance required from surface intakes, wellheads or cisterns of agricultural drainage wells, known sinkholes, major water sources ~~and watercourses~~ and designated wetlands, specified in Iowa Code section ~~455B.204~~ 459.310 and summarized in ~~Table~~ Tables 6 to 6d at the end of this chapter, shall not apply to a farm pond~~,~~ or privately owned lake as defined in Iowa Code section 462A.2, or to a confinement building, a manure storage structure or an egg washwater storage structure constructed with a secondary containment barrier according to subrule 65.15(17). To qualify for this separation distance exemption, the design of the secondary containment barrier shall be filed in accordance with subrule 65.9(8) prior to beginning construction of the confinement feeding operation structure.

65.12(8) *Exemptions to prohibition on one hundred year flood plain construction and separation distance requirements from water sources, major water sources, known sinkholes, agricultural drainage wells and designated wetlands—replacement formed manure storage structures.* As specified in Iowa Code section 459.310, subsection 4, a separation distance required in subrules 65.11(3) and 65.11(4) or the prohibition against construction of a confinement feeding operation structure on a one hundred year flood plain as provided in paragraph 65.8(3)*"e"* shall not apply to a confinement feeding operation that includes a confinement feeding operation structure that was constructed prior to March 1, 2003, if any of the following apply:

a. One or more unformed manure storage structures that are part of the confinement feeding operation are replaced with one or more formed manure storage structures on or after April 28, 2003, and all of the following apply:

(1) The animal weight capacity or animal unit capacity, whichever is applicable, is not increased for that portion of the confinement feeding operation that utilizes all replacement formed manure storage structures.

(2) The use of each replaced unformed manure storage structure is discontinued within one year after the construction of the replacement formed manure storage structure.

(3) The capacity of all replacement formed manure storage structures does not exceed the amount required to store manure produced by that portion of the confinement feeding operation utilizing the replacement formed manure storage structures during any 18-month period.

(4) No portion of the replacement formed manure storage structure is closer to the location or object from which separation is required under subrules 65.11(3) and 65.11(4) than any other confinement feeding operation structure which is part of the operation.

(5) The replacement formed manure storage structure meets or exceeds the requirements of Iowa Code section 459.307 as amended by 2009 Iowa Acts, House File 735, section 7, and subrule 65.15(14).

b. A replacement formed manure storage structure that is part of the confinement feeding operation is constructed on or after April 28, 2003, pursuant to a variance granted by the department. In granting the variance, the department shall make a finding of all of the following:

(1) The replacement formed manure storage structure replaces the confinement feeding operation's existing manure storage and handling facilities.

(2) The replacement formed manure storage structure complies with standards adopted pursuant to Iowa Code section 459.307 as amended by 2009 Iowa Acts, House File 735, section 7, and subrule 65.15(14).

(3) The replacement formed manure storage structure more likely than not provides a higher degree of environmental protection than the confinement feeding operation's existing manure storage and handling facilities. If the formed manure storage structure will replace any existing manure storage structure, the department shall, as a condition of granting the variance, require that the replaced manure storage structure be properly closed.

~~65.12(6)~~ 65.12(9) *Variances.* Variances to the water well separation requirements in subrule 65.11(5) may be granted by the director if the ~~applicant~~ petitioner complies with the procedures and

criteria in 561—Chapter 10 and provides an alternative that is substantially equivalent to the required separation distance or provides improved or greater protection for the water well. ~~Requests~~ Petition for a variance shall be made in writing at the time an application is submitted. The denial of a variance request may be appealed to the environmental protection commission.

ITEM 21. Amend rule 567—65.15(459,459B) as follows:

567—65.15(459,459B) Manure storage structure design requirements. The requirements in this rule apply to all ~~animal~~ confinement feeding operation structures unless specifically stated otherwise.

65.15(1) Drainage tile removal for new construction of a manure storage structure. Prior to constructing a manure storage structure, other than storage of manure in an exclusively dry form, the site for the animal feeding operation structure shall be investigated for drainage tile lines as provided in this subrule. All applicable records of known drainage tiles shall be examined for the existence of drainage tile lines.

a. ~~Prior~~ One of the following procedures shall be performed prior to excavation for ~~the berm of~~ an unformed manure storage structure~~, the owner of the unformed manure storage structure shall follow any one of the following procedures~~:

(1) An inspection trench of at least ten inches wide shall be dug around the structure to a depth of at least 6 feet ~~from~~ below the original grade and at least 50 feet ~~from the~~ beyond the structure's projected outside ~~edge of the berm~~ liquid surface at the high water level.

(2) A core trench shall be dug to a depth of at least 6 feet ~~from~~ below the original grade at the projected center of the berm. After investigation for tile lines and any discovered tile lines are removed, an additional containment barrier shall be constructed underneath the center of the berm. The ~~secondary~~ additional containment barrier shall meet the same percolation standards as the ~~lagoon or basin~~ structure with the lateral flow potential restricted to one-sixteenth of an inch per day.

b. ~~The drainage~~ Drainage tile lines discovered ~~near an unformed manure storage structure shall be removed~~ within the projected site of an unformed manure storage structure and within 50 feet of the projected ~~outside edge of the berm~~ structure's liquid surface at the high water level shall be removed and rerouted to at least 50 feet beyond the projected structure's liquid surface at the high water level ~~and within the projected site of the structure including under the berm. Drainage tile lines discovered upgrade from the structure shall be rerouted outside of 50 feet from the berm to continue the flow of drainage~~. Drainage tile lines installed at the time of construction to lower a groundwater table may remain where located. A device to allow monitoring of the water in the drainage tile lines installed to lower the groundwater table and a device to allow shutoff of the drainage tile lines shall be installed if the drainage tile lines do not have a surface outlet accessible on the property where the unformed manure storage structure is located. All other drainage tile lines discovered shall be rerouted, capped, plugged with concrete, Portland cement concrete grout or similar materials~~, or reconnected to upgrade tile lines~~.

c. The applicant for a construction permit for a formed manure storage structure shall investigate for tile lines during excavation for the structure. Drainage tile lines discovered upgrade from the structure shall be rerouted around the formed manure storage structure to continue the flow of drainage. All other drainage tile lines discovered shall be rerouted, capped, plugged with concrete, Portland cement concrete grout or similar materials ~~or reconnected to upgrade tile lines~~. Drainage tile lines installed at the time of construction to lower a groundwater table may remain where located. ~~A device to allow monitoring of the water in the drainage tile lines installed to lower the groundwater table and a device to allow shutoff of the drainage tile lines shall be installed if the drainage tile lines do not have a surface outlet accessible on the property where the formed manure storage structure is located.~~

d. A confinement feeding operation required to obtain a construction permit pursuant to subrule 65.7(1) or to follow the upgraded concrete standards set forth in paragraph 65.15(14)*"c"* shall install a sample port device to allow monitoring of the water in the drainage tile lines installed to lower the groundwater table. In addition, a device to allow shutoff of the drainage tile lines shall be installed if the drainage tile lines do not have a surface outlet accessible on the property where the formed manure storage structure is located.

~~*d.*~~ *e.* ~~An owner of a confinement feeding operation may utilize other~~ Other proven methods approved by the department may be utilized to discover drainage tile lines.

~~*e.*~~ *f.* Variances to this subrule may be granted by the director if the ~~owner of the confinement feeding operation~~ petitioner complies with the procedures and criteria in 561—Chapter 10 and provides an alternative that is substantially equivalent to ~~the~~ this subrule or provides improved effectiveness or protection as required by ~~the~~ this subrule. ~~A request~~ Petition for a variance shall be made in writing at the time the application is submitted or prior to investigating for drainage tile, whichever is earlier. The denial of a variance may be appealed to the commission.

~~*f.*~~ *g.* ~~A waiver to this subrule may be granted by the director~~ The requirements of this subrule do not apply if sufficient information is provided that allows the department to conclude that the location does not have a history of drainage tile.

65.15(2) to **65.15(5)** No change.

65.15(6) Soil testing for earthen structures. Applicants for construction permits for earthen manure storage structures shall submit soils information according to this subrule for the site of the proposed structure. All subsurface soil classification shall be based on American Society for Testing and Materials Designations D 2487-92 or D 2488-90. Soil corings shall be taken to determine subsurface soil characteristics and groundwater elevation and direction of flow of the proposed site for an anaerobic lagoon, aerobic structure, earthen egg washwater storage structure, or earthen manure storage basin. Soil corings shall be conducted by a qualified person normally engaged in soil testing activities. Data from the soil corings shall be submitted with a construction permit application and shall include a description of the geologic units encountered, ~~and~~ a discussion of the effects of the soil and groundwater elevation and direction of flow on the construction and operation of the anaerobic lagoon, aerobic structure, earthen egg washwater storage structure, or earthen manure storage basin and a discussion that addresses the suitability of the proposed structure at the site. All soil corings shall be taken by a method that identifies the continuous soil profile and does not result in the mixing of soil layers. The number and location of the soil corings will vary on a case-by-case basis as determined by the designing engineer and accepted by the department. The following are minimum requirements:

a. to *d.* No change.

65.15(7) Hydrology.

a. Groundwater table. A minimum separation of four feet between the top of the liner ~~on~~ for any ~~earthen aerobic structure, anaerobic lagoon, or earthen manure storage basin floor~~ unformed manure storage structure or earthen egg washwater storage structure and the groundwater table is recommended; however, in no case shall the top of the liner ~~on~~ for an ~~earthen aerobic structure, anaerobic lagoon, or earthen manure storage basin floor~~ unformed manure storage structure or earthen egg washwater storage structure be below the groundwater table. If the groundwater table is less than two feet below the top of the liner ~~on~~ for an ~~earthen aerobic structure, anaerobic lagoon, or earthen manure storage basin floor~~ unformed manure storage structure or earthen egg washwater storage structure, the ~~aerobic~~ unformed manure storage structure or earthen egg washwater storage structure~~, anaerobic lagoon, or earthen manure storage basin~~ shall be provided with a synthetic liner as described in paragraph 65.15(12)*"f."*

b. Permanent artificial lowering of groundwater table.

(1) Unformed structures. The groundwater table around an ~~anaerobic lagoon, aerobic structure, or earthen manure storage basin~~ unformed manure storage structure or earthen egg washwater storage structure may be artificially lowered to levels required in paragraph *"a"* by using a gravity flow tile drainage system or other permanent nonmechanical system for artificial lowering of the groundwater table. ~~For a permitted animal feeding operation, detailed~~ Detailed engineering and soil drainage information shall be provided with a construction permit application for an ~~earthen aerobic structure, anaerobic lagoon or earthen manure storage basin~~ unformed manure storage structure or earthen egg washwater storage structure to confirm the adequacy of the proposed permanent system to provide the required drainage without materially increasing the seepage potential of the site. Drainage tiles shall not be located closer than 6 feet horizontally from the structure's liquid surface at maximum operating

depth. (See 65.15(1)*"b"* for monitoring and shutoff requirements for drainage tile lines installed to lower the groundwater table.)

(2) Formed structures. For a formed manure storage ~~structures~~ structure or a formed egg washwater storage structure, partially or completely constructed below the normal soil surface, a tile drainage system or other permanent system for artificial lowering of groundwater levels shall be installed around the structure if the groundwater table is above the bottom of the structure. (See 65.15(1)*"b"* for monitoring and shutoff requirements for drainage tile lines installed to lower the groundwater table.)

c. Determination of groundwater table. For purposes of this rule, groundwater table is the seasonal high water table determined by a licensed professional engineer, a groundwater professional certified pursuant to 567—Chapter 134, or qualified staff from the department or Natural Resources Conservation Service (NRCS). If a construction permit is required, the department must approve the groundwater table determination.

(1) Current groundwater levels shall be measured using at least one of the following for either formed or unformed structures:

1. No change.

2. Test pits. The department may allow use of test pits in lieu of temporary monitoring wells if seasonal variation in climatic patterns, soil and geologic conditions prevent accurate determination of the seasonal high water table or prior to the construction of an unformed manure storage structure liner to ensure that the required separation distance to the groundwater table is being met. ~~Test pits will be configured 3 feet × 4 feet × 4 feet, or equivalent volume, and the bottom of each pit~~ The bottom of each test pit shall be at least 2 feet below the floor of the ~~proposed anaerobic lagoon, earthen manure storage basin, earthen aerobic structure or settled open feedlot effluent basin~~ manure storage structure or egg washwater storage structure. Each pit shall be allowed to remain open and unaltered for a minimum of seven days for viewing by the department or NRCS qualified staff for the determination of soil characteristics and related groundwater influence. Adequate protection (temporary berms and covers) shall be provided to prevent surface runoff from entering the test pits. One test pit shall be located in each corner and one in the center of the proposed manure control structure, unless otherwise specified by the department. A description of the materials present in the test pit shall be documented by all of the following:

- Digital photos;
- Description of soils including mottling;
- Construction specifications; and
- Weather conditions both prior to and during the period in which test pits are open.

(2) No change.

65.15(8) Karst ~~features~~ terrain and alluvial aquifer areas.

a. ~~The anaerobic lagoon or earthen manure storage basin~~ An unformed manure storage structure or unformed egg washwater storage structure shall not be located on ~~a site that exhibits~~ Karst ~~features such as sinkholes, or solution channeling generally occurring in areas underlain by limestone or dolomite~~ terrain.

b. Dry bedded confinement feeding operation structures constructed on karst terrain or in an alluvial aquifer area shall comply with all of the following:

(1) A minimum 5-foot layer of low permeability soil or rock between the bottom of the floor of the dry bedded confinement feeding operation structure and the underlying limestone, dolomite or other soluble rock in karst terrain or the underlying sand and gravel aquifer in an alluvial aquifer area is required. A professional engineer licensed in Iowa, NRCS engineer or qualified organization shall submit a soil report, based on the results from soil borings or test pits, describing the subsurface materials and vertical separation distance from the proposed bottom of the dry bedded confinement feeding operation structure and the underlying limestone, dolomite or soluble rock. A minimum of two soil borings or test pits, at each end of the proposed structure, are required if acceptable well data are not available. After soil exploration is complete, each boring or test pit shall be properly plugged with concrete grout, bentonite or similar materials and documented in the soil report.

(2) The dry bedded confinement feeding operation structure shall be constructed with a floor consisting of reinforced concrete at least five inches thick conforming to the requirements of 65.15(14)*"a"*(2), numbered paragraphs "1," "3," "4," "6," "8" and "12."

65.15(9) Bedrock separation. A minimum of four feet of separation between an unformed manure storage structure bottom and any bedrock formation is required. A ten-foot separation is recommended. A synthetic liner ~~shall be~~ is required if the unformed structure is to be located less than ten feet above a carbonate or limestone formation.

65.15(10) Flooding protection.

a. ~~An animal~~ A confinement feeding operation structure proposed to be constructed on land that would be inundated by Q100 shall meet requirements as specified in 567—Chapters 70 to 76, unless otherwise prohibited according to paragraph 65.15(10)*"b."*

b. A confinement feeding operation structure shall not be constructed on the one hundred year flood plain.

65.15(11) Seals for ~~anaerobic lagoons, aerobic structures, and earthen manure storage basins~~ unformed manure storage structures and unformed egg washwater storage structures. ~~A lagoon or basin~~ An unformed manure storage structure or egg washwater storage structure shall be sealed such that seepage loss through the seal is as low as practically possible. The percolation rate shall not exceed 1/16 inch per day at the design depth of the ~~lagoon or basin~~ structure. Following construction of the ~~lagoon or basin~~ structure, the results of a testing program which indicates the adequacy of the seal shall be provided to this department in writing prior to start-up of a permitted operation. ~~The owner of a confinement feeding operation not required to obtain a construction permit shall keep a record of the construction methods and materials used to provide the seal and any test results available on the adequacy of the seal.~~

65.15(12) ~~Aerobic structure, anaerobic lagoon, or earthen manure storage basin~~ Unformed manure storage structure and unformed egg washwater storage structure liner design and construction standards. An ~~aerobic structure, anaerobic lagoon or earthen manure storage basin~~ unformed manure storage structure or unformed egg washwater storage structure which receives a construction permit after January 21, 1998, shall comply with the following minimum standards in addition to subrule 65.15(11).

a. If the location of the proposed ~~aerobic structure, anaerobic lagoon or earthen manure storage basin~~ unformed manure storage structure or unformed egg washwater storage structure contains suitable materials as determined by the soil corings taken pursuant to subrule 65.15(6), those materials shall be compacted to establish a minimum of a 12-inch liner. A minimum initial overexcavation of 6 inches of material shall be required. The underlying material shall be scarified, reworked and compacted to a depth of 6 inches. The overexcavated materials shall be replaced and compacted.

b. If the location of the proposed ~~aerobic structure, anaerobic lagoon or earthen manure storage basin~~ unformed manure storage structure or unformed egg washwater storage structure does not contain suitable materials as determined by the soil corings taken ~~in~~ pursuant to subrule 65.15(6), suitable materials shall be obtained from another location approved by the department and shall be compacted to establish a minimum of a 24-inch liner.

c. and *d.* No change.

e. For purposes of this rule, suitable materials means soil, soil combinations or other similar material that is capable of meeting the permeability and compaction requirements. Sand seams, gravel seams, organic soils or other materials generally not suitable for ~~anaerobic lagoon, aerobic structure, or earthen manure storage basin~~ unformed manure storage structure or unformed egg washwater storage structure construction are not considered suitable liner materials.

f. As an alternative to the above standards, a synthetic liner may be used. If the use of a synthetic liner is planned for an ~~earthen aerobic structure, an anaerobic lagoon, or earthen manure storage basin~~ unformed manure storage structure or unformed egg washwater storage structure, the permit application shall outline how the site will be prepared for placement of the liner, the physical, chemical, and other pertinent properties of the proposed liner, and information on the procedures to be used in liner installation and maintenance. In reviewing permit applications which involve use of synthetic liners, ~~DNR~~ the department will consider relevant synthetic liner standards adopted by industry,

governmental agencies, and professional organizations as well as technical information provided by liner manufacturers and others.

65.15(13) Anaerobic lagoon design standards. An anaerobic lagoon shall meet the requirements of this subrule.

a. No change.

b. Minimum stabilization volume and loading rate.

(1) No change.

(2) In Lyon, Sioux, Plymouth, Woodbury, Osceola, Dickinson, Emmet, Kossuth, O'Brien, Clay, Palo Alto, Cherokee, Buena Vista, Pocahontas, Humboldt, Ida, Sac, Calhoun, and Webster ~~counties~~ Counties for all animal species other than beef there shall be 1000 cubic feet minimum design volume for each 4.5 pounds of volatile solids per day if the volatile solids produced per day are 6000 pounds or fewer. However, if a water analysis as required in ~~65.15(3)*"c"*(2)~~ 65.15(13)*"c"*(2) below indicates that the sulfate level is below 500 milligrams per liter, then the rate is 1000 cubic feet for each 5.0 pounds of volatile solids per day.

(3) to (6) No change.

c. to *f.* No change.

65.15(14) Concrete standards. A formed manure storage structure which is constructed of concrete on or after March 24, 2004, that is part of a confinement feeding operation other than a small animal feeding operation shall meet the following minimum standards. For the purpose of this subrule, a "PE" is a professional engineer licensed in the state of Iowa and an "NRCS engineer" is an engineer working for the USDA Natural Resources Conservation Service (NRCS). (CAVEAT: These standards are not intended to address other site-related engineering and construction considerations beyond the department's jurisdiction.)

a. and *b.* No change.

c. Karst terrain—upgraded standards. If the site of the proposed formed manure storage structure is located in ~~an area that exhibits~~ karst terrain or an area that drains into a known sinkhole, the minimum concrete standards set forth in paragraph 65.15(14)*"a"* or *"b"* shall apply. In addition, the following requirements apply to all formed manure storage structures that store nondry or dry manure:

(1) In an area that exhibits karst terrain or an area that drains into a known sinkhole, a PE, an NRCS engineer or a qualified organization shall submit a soil exploration study based on the results from soil borings or test pits to determine the vertical separation between the bottom of the formed structure and limestone, dolomite, or other soluble rock. A minimum of two soil borings or two test pits, equally spaced within each formed structure, are required. After soil exploration is completed, each soil boring and test pit shall be properly plugged with concrete grout, bentonite, or similar materials.

~~(1)~~ (2) A minimum 5-foot ~~vertical separation distance~~ layer of low permeability soil or rock between the bottom of a formed manure storage structure and limestone, dolomite, or other soluble rock is required if the formed manure storage structure is not designed by a PE or an NRCS engineer.

~~(2)~~ (3) If the vertical separation distance between the bottom of the proposed formed manure storage structure and limestone, dolomite, or other soluble rock is less than 5 feet, the structure shall be designed and sealed by a PE or an NRCS engineer who certifies the structural integrity of the structure. A 2-foot-thick layer of compacted clay liner material shall be constructed underneath the floor of the formed manure storage structure. However, it is recommended that any formed manure storage structure be constructed aboveground if the vertical separation distance between the bottom of the structure and the limestone, dolomite, or other soluble rock is less than 5 feet.

~~(3) In addition, in an area that exhibits karst terrain or an area that drains into a known sinkhole, a PE, an NRCS engineer or a qualified organization shall submit a soil exploration study based on the results from soil borings or test pits to determine the vertical separation between the bottom of the formed structure and limestone, dolomite, or other soluble rock. A minimum of two soil borings or two test pits, equally spaced within each formed structure, are required. After soil exploration is completed, each soil boring and pit shall be properly plugged with concrete grout, bentonite, or similar materials.~~

(4) Groundwater monitoring shall be performed as specified by the department.

(5) Backfilling shall not start until the floor slats have been placed or permanent bracing has been installed, and shall be performed with material free of vegetation, large rocks, or debris.

d. Cold and hot weather concreting recommendations. If air temperature is below 40 degrees Fahrenheit, the NRCS National Engineering Handbook (NEH) Part 642, Chapter 2, Concrete for Major Structures (cs031), subsection 21, should be followed. If ready-mix concrete temperature is above 90 degrees Fahrenheit, the NRCS National Engineering Handbook (NEH) Part 642, Chapter 2, Concrete for Major Structures (cs031), subsection 22, should be followed. These specifications can be found at the USDA NRCS official Web site.

65.15(15) Berm erosion control.

a. The following requirements ~~shall~~ apply to ~~any anaerobic lagoons, earthen aerobic structures, or earthen manure storage basins~~ unformed manure storage structures and unformed egg washwater storage structures constructed after May 12, 1999.

(1) Concrete, riprap, synthetic liners or similar erosion control materials or measures shall be used on the berm surface below pipes where manure will enter the ~~anaerobic lagoon, aerobic structure, or earthen manure storage basin~~ structure.

(2) Concrete, riprap, synthetic liners or similar erosion control materials or measures of sufficient thickness and area to accommodate manure removal equipment and to protect the integrity of the liner shall be placed at all locations on the berm, side slopes, and base of the ~~anaerobic lagoon, aerobic structure, or earthen manure storage basin~~ structure where agitation or pumping may cause damage to the liner.

(3) Erosion control materials or measures shall be used at the corners of the ~~anaerobic lagoon, aerobic structure, or earthen manure storage basin~~ structure.

(4) To control erosion, perennial (grass) vegetation must be maintained on the outer, top and inner dikes up to the two-foot freeboard level of the unformed storage structure or earthen egg washwater storage structure, unless covered by concrete, riprap, synthetic liners or similar erosion control materials or measures.

b. The owner of a confinement feeding operation with an ~~anaerobic lagoon, earthen aerobic structure, earthen manure storage basin, earthen waste slurry storage basin, or earthen~~ unformed manure storage structure or an unformed egg washwater storage structure shall inspect the structure berms at least semiannually for evidence of erosion. Erosion problems found which may impact either structural stability or liner integrity shall be corrected in a timely manner.

65.15(16) Agricultural drainage wells. After May 29, 1997, a person shall not construct a new or expand an existing ~~earthen aerobic structure, earthen anaerobic lagoon, earthen manure storage basin, earthen waste slurry storage basin, or earthen~~ unformed manure storage structure or an unformed egg washwater storage structure within an agricultural drainage well area.

65.15(17) Secondary containment barriers for manure storage structures. Secondary containment barriers used to qualify any confinement feeding operation for the exemption provision in subrule ~~65.12(5)~~ 65.12(7) shall be filed with the department according to subrule 65.9(8) and shall meet the following design standards:

a. A secondary containment barrier shall consist of a structure surrounding or downslope of a manure storage structure ~~that is~~ and shall be designed according to either of the following:

(1) If the manure storage structure is used to store liquid or semiliquid manure, the secondary containment barrier shall be designed to contain 120 percent of the volume of manure stored above the manure storage structure's final grade or 50 percent of the volume of manure stored belowground or partially belowground, whichever is greater. Engineering drawings prepared by a professional engineer licensed in Iowa or by an engineer working for the USDA Natural Resources Conservation Service (NRCS) must be submitted according to procedures set forth in subrule 65.9(8) and must show compliance with 65.15(17)*"a"* to *"d"* or *"e."* If the containment barrier does not surround the manure storage structure, upland drainage must be diverted.

(2) If the manure storage structure is used for the storage of only dry manure, the secondary containment barrier shall be designed to contain at least 10 percent of the volume of manure stored. Detailed drawings prepared by the owner or a representative must be submitted according to procedures

set forth in subrule 65.9(8) and must show compliance with 65.15(17)*"a"* to *"d"* or *"e."* If the containment barrier does not surround the manure storage structure, upland drainage must be diverted.

b. The barrier may be constructed of earth, concrete, or a combination of both. ~~and shall not have~~ If a relief outlet or valve is installed, the relief outlet or valve shall remain closed. Any accumulated liquid must be tested for ammonium-nitrogen (NH_4-N) and nitrate-nitrogen (NO_3-N) prior to land application or discharge. Based on the effluent testing results, the department may approve proper disposal of the secondary containment barrier effluent.

c. to *e.* No change.

65.15(18) Human sanitary waste shall not be ~~directed~~ discharged to a manure storage structure or egg washwater storage structure.

65.15(19) Requirements for qualified operations. A confinement feeding operation that meets the definition of a qualified operation shall only use an aerobic structure for manure storage and treatment. This requirement does not apply to a confinement feeding operation that only handles dry manure ~~in a dry form~~ or to an egg washwater storage structure or to a confinement feeding operation which was constructed before May 31, 1995, and does not expand.

65.15(20) No change.

ITEM 22. Amend rule 567—65.16(459,459B) as follows:

567—65.16(459,459B) Manure management plan requirements.

65.16(1) In accordance with Iowa Code section ~~455B.203 as amended by 2002 Iowa Acts, chapter 1137, section 38~~ 459.312 as amended by 2009 Iowa Acts, Senate File 432, section 2, the following persons are required to submit manure management plans to the department, including an original manure management plan and an updated manure management plan, as required by this rule:

a. An applicant for a construction permit for a confinement feeding operation. However, a manure management plan shall not be required of an applicant for an egg washwater storage structure or for a small animal feeding operation.

b. The owner of a confinement feeding operation, other than a small animal feeding operation, if one of the following applies:

(1) No change.

(2) The owner constructs a manure storage structure, regardless of whether the person is required to be issued a permit for the construction pursuant to Iowa Code section ~~455B.200A as amended by 2002 Iowa Acts, chapter 1137, sections 28 and 29~~ 459.303, or whether the person has submitted a prior manure management plan.

c. No change.

d. A new owner of a confinement feeding operation may apply manure under the most recent owner's manure management plan until the new owner develops an original manure management plan. The new owner must develop and submit an original manure management plan within 60 days after acquiring the operation.

~~*d.*~~ *e.* A research college is exempt from this subrule and the manure management plan requirements of rule 567—65.17(459,459B) for research activities and experiments performed under the authority of the research college and related to ~~animal~~ confinement feeding operations.

65.16(2) ~~Effective February 13, 2002, an~~ The owner of a proposed confinement feeding operation who is not required to obtain a construction permit pursuant to subrule 65.7(1) but who is required to file a manure management plan pursuant to paragraph 65.16(1)*"b"* shall ~~submit~~ file a construction design statement and provide the information required in subrule 65.9(3), including the confinement feeding operation's manure management plan, to the department at least 30 days before the construction of an animal feeding operation structure begins, as ~~that term is~~ defined in subrules 65.8(1) and 65.8(2). ~~After the manure management plan has been received by the department, the department will date-stamp the plan as received and provide written confirmation of receipt to the owner. In addition to the content requirements specified in rule 567—65.17(459), the owner shall include:~~

~~*a.* Documentation that the board of supervisors or auditor of the county where the confinement feeding operation is proposed to be located received a copy of the plan.~~

~~*b.* Information (e.g., maps, drawings, aerial photos) that clearly shows the intended location of the animal feeding operation structures and locations and animal weight capacities of any other confinement feeding operations within a distance of 2,500 feet in which the owner has an ownership interest or which the owner manages.~~

65.16(3) and **65.16(4)** No change.

65.16(5) Manure shall not be removed from a manure storage structure, which is part of a confinement feeding operation required to submit a manure management plan, until the department has approved the plan. ~~As an exception to this requirement, until July 1, 2002, the owner of a confinement feeding operation may remove and apply manure from a manure storage structure in accordance with a manure management plan submitted to the department prior to September 18, 2001, but which has not been approved within the required 60-day period.~~ Manure shall be applied in compliance with rule 567—65.2(459,459B).

65.16(6) Manure storage indemnity fee. All persons required to submit a manure management plan to the department shall also pay to the department an indemnity fee as required in Iowa Code section ~~455J.3~~ 459.503 except those operations constructed prior to May 31, 1995, which were not required to obtain a construction permit.

65.16(7) Filing fee. Any person submitting an original manure management plan must also pay to the department a manure management plan filing fee of $250. This fee shall be included with each original manure management plan being submitted. If the confinement feeding operation is required to obtain a construction permit and to submit an original manure management plan as part of the construction permit requirements, the applicant must pay the manure management plan filing fee together with the construction permit application fee, which total $500.

ITEM 23. Amend rule 567—65.17(459,459B) as follows:

567—65.17(459,459B) Manure management plan content requirements. All manure management plans are to be submitted on forms or electronically as prescribed by the department. The plans shall include all of the information specified in Iowa Code section 459.312 as amended by 2009 Iowa Acts, Senate File 432, section 2, and as described below.

65.17(1) *General.*

a. A confinement feeding operation that is required to submit a manure management plan to the department shall not apply manure in excess of the nitrogen use levels necessary to obtain optimum crop yields. ~~When a phosphorus index is required in a manure management plan as provided in 65.17(1)"*d,*" a~~ A confinement feeding operation shall not apply manure in excess of the rates determined in conjunction with the phosphorus index. Information to complete the required calculations may be obtained from the tables in this chapter, actual testing samples or from other credible sources reviewed and approved by the department including, but not limited to, Iowa State University, the United States Department of Agriculture (USDA), a licensed professional engineer, or an individual certified as a crop consultant under the American Registry of Certified Professionals in Agronomy, Crops, and Soils (ARCPACS) program, the Certified Crop Advisors (CCA) program, or the Registry of Environmental and Agricultural Professionals (REAP) program.

b. and *c.* No change.

d. A person who submits a manure management plan shall include a phosphorus index as part of the manure management plan as ~~follows:~~ required in subrule 65.17(17).

~~(1) A person who submitted an original manure management plan prior to April 1, 2002, shall submit a phosphorus index with the first manure management plan update on and after August 25, 2008.~~

~~(2) A person who submitted an original manure management plan on or after April 1, 2002, but prior to October 25, 2004, shall submit a phosphorus index with the first manure management plan update on and after August 25, 2006.~~

~~(3) A person who submits an original manure management plan on and after October 25, 2004, shall include the phosphorus index as part of the original manure management plan and manure management plan updates.~~

e. A description of land identified for the application of liquid manure due to an emergency if allowed pursuant to subrule 65.3(4). The phosphorus index for each potential emergency application field must be calculated assuming frozen ground conditions, and application rates should be calculated appropriately. Locations of downgradient surface water drain tile intakes within all fields included in the plan should be identified by map or coordinates. Future applications of liquid manure must take the nutrients added during emergencies into consideration.

65.17(2) *Manure management plans for sales of manure.* Selling manure means the transfer of ownership of the manure for monetary or other valuable consideration. Selling manure does not include a transaction where the consideration is the value of the manure, or where an easement, lease or other agreement granting the right to use the land only for manure application is executed.

a. No change.

b. A confinement feeding operation not fully covered by paragraph *"a"* above and that has an established practice of selling manure, or a confinement feeding operation that contains an animal species for which selling manure is a common practice, shall submit a manure management plan that includes the following:

~~(1) Until a phosphorus index is required as part of the manure management plan, an estimate of the number of acres required for manure application shall be calculated by dividing the total nitrogen available to be applied from the confinement feeding operation by the crop usage rate. Crop usage rate may be estimated by using a corn crop usage rate factor and an estimate of the optimum crop yield for the property in the vicinity of the confinement feeding operation.~~

~~(2)~~ (1) ~~When a phosphorus index is required as part of the manure management plan, an~~ An estimate of the number of acres required for manure application ~~shall be~~ calculated by one of the following methods:

1. and 2. No change.

~~(3)~~ (2) The total nitrogen available to be applied from the confinement feeding operation.

~~(4)~~ (3) The total phosphorus (as P_2O_5) available to be applied from the confinement feeding operation if the phosphorus index is required in accordance with paragraph 65.17(1)*"d."*

~~(5)~~ (4) An estimate of the annual animal production and manure volume or weight produced.

~~(6)~~ (5) A manure sales form~~, if~~. If manure will be sold, the manure sales form shall include the following information:

1. to 6. No change.

7. ~~When a phosphorus index is required as part of a manure management plan in accordance with 65.17(1)*"d,"* a~~ A place for a phosphorus index of each field receiving manure, as defined in paragraph 65.17(17)*"a,"* including the factors used in the calculation. A copy of the NRCS phosphorus index detailed report shall satisfy the requirement to include the factors used in the calculation.

~~(7)~~ (6) Statements of intent if the manure will be sold. The number of acres indicated in the statements of intent shall be sufficient according to the manure management plan to apply the manure from the confinement feeding operation. The permit holder for an existing confinement feeding operation with a construction permit may submit past records of manure sales instead of statements of intent. The statements of intent shall include the following information:

1. to 4. No change.

~~(8)~~ (7) The owner shall maintain in the owner's records a current manure management plan and copies of all of the manure sales forms; the sales forms must be completed and signed by each buyer of the manure and the applicant, and the copies must be maintained in the owner's records for three years after each sale. ~~Effective August 25, 2006, the~~ The owner shall maintain in the owner's records copies of all of the manure sales forms for five years after each sale. An owner of a confinement feeding operation shall not be required to maintain current statements of intent as part of the manure management plan.

65.17(3) *Manure management plan for nonsales of manure.* Confinement feeding operations that will not sell all of their manure shall submit the following for that portion of the manure which will not be sold:

a. No change.

b. The total nitrogen and total phosphorus (as P_2O_5) available to be applied from the confinement feeding operation.

c. to *h.* No change.

i. ~~When a phosphorus index is required as part of the manure management plan in accordance with 65.17(1)*"d,"* the following are required:~~ A phosphorus index of each field in the manure management plan, as defined in paragraph 65.17(17)*"a,"* including the factors used in the calculation. A copy of the NRCS phosphorus index detailed report shall satisfy the requirement to include the factors used in the calculation.

~~(1) The total phosphorus (as P_2O_5) available to be applied from the confinement feeding operation.~~

~~(2) A phosphorus index of each field in the manure management plan, as defined in 65.17(17)*"a,"* including the factors used in the calculation. A copy of the NRCS phosphorus index detailed report shall satisfy the requirement to include the factors used in the calculation.~~

65.17(4) *Manure management plan calculations to determine land area required for manure application.*

a. The number of acres needed for manure application for each year of the crop schedule shall be determined ~~as follows:~~ as required in subrule 65.17(17).

~~(1) Until a phosphorus index is required in accordance with 65.17(1)*"d,"* the requirements of 65.17(18) shall be followed.~~

~~(2) When a phosphorus index is required in accordance with 65.17(1)*"d,"* the requirements of 65.17(17) shall be followed.~~

b. and *c.* No change.

65.17(5) No change.

65.17(6) *Optimum crop yield and crop schedule.*

a. To determine the optimum crop yield, the applicant may either exclude the lowest crop yield for the period of the crop schedule in the determination or allow for a crop yield increase of 10 percent. In using these methods, adjustment to update yield averages to current yield levels may be made if it can be shown that the available yield data is not representative of current yields. The optimum crop yield shall be determined using any of the following methods for the cropland where the manure is to be applied:

(1) and (2) No change.

(3) Proven yield methods. Proven yield methods may only be used if a minimum of the most recent three years of yield data for the crop is used. These yields can be proven on a field-by-field or farm-by-farm basis. To be considered a farm-by-farm basis, the fields must be owned, rented or leased for crop production by the person required to keep records pursuant to subrule 65.17(13) or included in a manure application agreement in that person's manure management plan. Crop disaster years may be excluded when there is a 30 percent or more reduction in yield for a particular field or farm from the average yield over the most recent five years. Excluded years shall be replaced by the most recent nondisaster years. Proven yield data used to determine application rates shall be maintained with the current manure management plan. Any of the following proven yield methods may be used:

1. to 3. No change.

b. No change.

65.17(7) No change.

65.17(8) *Location of manure application.*

a. The manure management plan shall identify each farm where the manure will be applied, the number of acres that will be available for the application of manure from the confinement feeding operation, and the basis under which the land is available.

b. A copy of each written agreement executed with the owner of the land where manure will be applied shall be maintained with the current manure management plan. The written agreement shall indicate the number of acres on which manure from the confinement feeding operation may be applied and the length of the agreement. A written agreement is not required if the land is owned or rented for crop production by the owner of the confinement feeding operation. Owners of dry bedded confinement feeding operations required to have a manure management plan may execute a written agreement with

the landowner or the person renting the land for crop production where the dry bedded manure will be applied.

c. If a present location becomes unavailable for manure application, additional land for manure application shall be identified in the current manure management plan prior to the next manure application period.

65.17(9) No change.

65.17(10) *Methods to reduce soil loss and potential surface water pollution.* ~~The manure management plan shall include an identification of the methods, structures or practices that will be used to prevent or diminish soil loss and potential surface water pollution during the application of manure. Until a phosphorus index is required in accordance with 65.17(1)"d," the current manure management plan shall maintain a summary or copy of the conservation plan for the cropland where manure from the animal feeding operation will be applied if the manure will be applied on highly erodible cropland. The conservation plan shall be the conservation plan approved by the local soil and water conservation district or its equivalent. The summary of the conservation plan shall identify the methods, structures or practices that are contained in the conservation plan. When a phosphorus index is required in accordance with 65.17(1)"d," the~~ The manure management plan shall indicate for each field in the plan the crop rotation, tillage practices and supporting practices used to calculate sheet and rill erosion for the phosphorus index. A copy of ~~the~~ an NRCS RUSLE2 ~~profile~~ erosion calculation record shall satisfy ~~the~~ this requirement ~~to indicate the crop rotation, tillage practices and supporting practices to calculate sheet and rill erosion~~. The plan shall also identify the highly erodible cropland where manure will be applied. ~~The manure management plan may include additional information such as whether the manure will be injected or incorporated or the type of manure storage structure.~~

65.17(11) and **65.17(12)** No change.

65.17(13) *Record keeping.* Records shall be maintained by the owner of a confinement feeding operation who is required to submit a manure management plan. This recorded information shall be maintained for three years following the year of application or for the length of the crop rotation, whichever is greater. ~~Effective August 25, 2006, records~~ Records shall be maintained for five years following the year of application or for the length of the crop rotation, whichever is greater. Records shall be maintained at the site of the confinement feeding operation or at a residence or office of the owner or operator of the facility within 30 miles of the site. Records to demonstrate compliance with the manure management plan shall include the following:

a. to *d.* No change.

e. ~~Effective August 25, 2005,~~ The date(s) and application rate(s) of commercial nitrogen and phosphorus on fields that received manure. However, if the date and application rate information is for fields which are not owned for crop production or which are not rented or leased for crop production by the person required to keep records pursuant to this subrule, an enforcement action for noncompliance with a manure management plan or the requirements of this subrule shall not be pursued against the person required to keep records pursuant to this subrule or against any other person who relied on the date and application rate in records required to be kept pursuant to this subrule, unless that person knew or should have known that nitrogen or phosphorus would be applied in excess of maximum levels set forth in paragraph 65.17(1)*"a."* If manure is applied to fields not owned, rented or leased for crop production by the person required to keep records pursuant to this subrule, that person shall obtain from the person who owns, rents or leases those fields a statement specifying the planned commercial nitrogen and phosphorus fertilizer rates to be applied to each field receiving the manure.

f. ~~When a phosphorus index is required in accordance with 65.17(1)"d," a~~ A copy of the current soil test lab results for each field in the manure management plan.

g. No change.

65.17(14) to **65.17(16)** No change.

65.17(17) *Use of the phosphorus index.* Manure application rates shall be determined in conjunction with the use of the Iowa Phosphorus Index as specified by the USDA Natural Resources Conservation Service (NRCS) Iowa Technical Note No. 25.

a. No change.

b. When sheet and rill erosion is calculated for the phosphorus index, the soil type used for the calculation shall be the ~~most erosive soil map unit that is at least 10 percent of the total field area~~ dominant critical soil map unit consistent with NRCS conservation planning guidelines. See NRCS Technical Note 29.

c. and *d.* No change.

e. For an original manure management plan, previous soil sampling data that does not meet the requirements of subrule 65.17(16) may be used in the phosphorus index if the data is four years old or less. In the case of fields for which soil sampling data is used that does not meet the requirements of subrule 65.17(16), the fields must be soil-sampled according to the requirements of subrule 65.17(16) no more than one year after the original manure management plan is approved.

f. The following are the manure application rate requirements for fields that are assigned the phosphorus index site vulnerability ratings below as determined by the NRCS Iowa Technical Note No. 25 to the NRCS 590 standard rounded to the nearest one-hundredth:

(1) to (3) No change.

(4) High (>5-15). Manure shall not be applied on a field with a rating greater than 5 and less than or equal to 15 until practices are adopted which reduce the phosphorus index to at least the Medium risk category. ~~However, prior to December 31, 2008, fields with a phosphorus index greater than 5 and less than or equal to 10 may receive manure at a phosphorus-based rate in accordance with 65.17(19) if practices will be adopted to reduce the phosphorus index to the Medium risk category.~~

(5) No change.

g. No change.

h. Updating the phosphorus index.

(1) and (2) No change.

(3) An operation must submit a complete manure management plan using a new phosphorus index, including soil sampling as required in subrule 65.17(16), for each field in the manure management plan a minimum of once every four years.

65.17(18) No change.

65.17(19) *Requirements for application of a phosphorus-based manure rate to a field.*

a. to *e.* No change.

f. Phosphorus in manure should be considered 100 percent available unless soil phosphorus concentrations are below optimum levels for crop production. If soil phosphorus concentrations are below optimum levels for crop production phosphorus availability, values suggested in Iowa State University extension publication PM ~~1811~~ 1003, "~~Managing~~ Using Manure Nutrients for Crop Production" or other credible sources shall be used.

65.17(20) No change.

ITEM 24. Amend rule 567—65.18(459,459B) as follows:

567—65.18(459,459B) Construction certification. A confinement feeding operation which obtains a construction permit after March 20, 1996, shall submit to the department a construction certification ~~from a licensed professional engineer that the manure storage structure in which manure is stored in a liquid or semiliquid form or the egg washwater storage structure was~~ according to the following:

65.18(1) For a confinement feeding operation that is below the threshold requirements for an engineer as defined in 567—65.1(459,459B), prior to using a permitted confinement feeding operation structure, the person responsible for constructing a formed manure storage structure or the permittee shall submit to the department a construction certification, as specified in the construction permit.

65.18(2) For a confinement feeding operation that uses an unformed manure storage structure or an egg washwater storage structure, or an operation that meets or exceeds the threshold engineering requirements as defined in 567—65.1(459,459B), a certification from a licensed professional engineer that the confinement feeding operation structure was:

~~1.~~ *a.* Constructed in accordance with the design plan. ~~If actual construction deviates from the approved plans, identify all~~ Any changes to the approved plans must first be authorized by the

department and ~~certify~~ must include a certification that the proposed changes ~~were~~ are consistent with the standards of these rules or statute;

~~2.~~ *b.* Supervised by the licensed professional engineer or a designee of the engineer during critical points of the construction. A designee shall not be the permittee, owner of the confinement feeding operation, a direct employee of the permittee or owner, or the contractor or an employee of the contractor;

~~3.~~ *c.* Inspected by the licensed professional engineer after completion of construction and before commencement of operation; and

~~4.~~ *d.* Constructed in accordance with the drainage tile removal standards of subrule 65.15(1), and including a report of the findings and actions taken to comply with ~~this~~ subrule 65.15(1).

ITEM 25. Amend subrules 65.19(1), 65.19(2), 65.19(5), 65.19(6) and 65.19(8) as follows:

65.19(1) A commercial manure service~~,~~ or a commercial manure service representative ~~or a confinement site manure applicator~~ shall not transport, handle, store or apply dry or liquid manure to land~~,~~ unless the person is certified. A confinement site manure applicator shall not apply dry or liquid manure to land unless the person is certified. A person is not required to be certified as a confinement site manure applicator if the person applies manure which originates from a manure storage structure which is part of a small animal feeding operation. Certification of a commercial manure service representative under this rule will also satisfy the commercial license requirement under 567—Chapter 68 only as it applies to manure removal and application. Each person who operates a manure applicating vehicle or equipment must be certified individually except as allowed in subrule 65.19(7).

65.19(2) Fees.

a. Commercial manure service. ~~Effective January 1, 2004, the~~ The fee for a new or renewed certification of a service is $200. The commercial manure service shall designate one manager for the service and shall provide the department with documentation of the designation.

b. Commercial manure service representative. ~~Effective January 1, 2004, the~~ The fee for a new or renewed representative certification is $75. The manager of a commercial manure service must be certified as a commercial manure service representative, but is exempt from paying the $75 certification fee.

c. Confinement site manure applicator. ~~Effective January 1, 2003, the~~ The fee for a new or renewed certification is $100. However, the fee is not required if all of the following apply:

(1) to (3) No change.

d. Educational fee. ~~Effective May 30, 2003, commercial~~ Commercial manure service representatives, managers and confinement site manure applicators shall pay an educational fee to be determined annually by the department.

e. and *f.* No change.

65.19(5) Examinations.

a. A person wishing to take the examination required to become a certified commercial manure service representative or certified confinement site manure applicator may request ~~a listing of dates and locations of examinations~~ an appointment. The applicant must have a photo identification card at the time of taking the examination.

b. and *c.* No change.

65.19(6) Continuing instruction courses in lieu of examination.

a. No change.

b. To establish or maintain certification, a confinement site manure applicator must either pass an examination every three years or attend two hours of continuing instructional courses each year. A confinement site manure applicator who chooses to attend instructional courses but fails to attend instructional courses each year must pass an examination as provided in subrule 65.19(5) to maintain certification.

65.19(8) Certified commercial manure services have the following obligations:

a. No change.

b. Comply with the provisions of the manure management plan (MMP) prepared for the ~~animal~~ confinement feeding operation and the requirements of 567—65.2(459,459B) and

567—65.3(459,459B). If a manure management plan does not exist, the requirements of 567—65.2(459,459B) and 567—65.3(459,459B) must still be met.

c. to *f.* No change.

ITEM 26. Amend rule 567—65.20(459,459B), introductory paragraph, as follows:

567—65.20(459,459B) Manure storage indemnity fund. The manure storage indemnity fund created in Iowa Code ~~chapter 455J~~ section 459.501 will be administered by the department. Moneys in the fund shall be used for the exclusive purpose of administration of the fund and the cleanup of eligible facilities at confinement feeding operation sites.

ITEM 27. Amend subrule 65.20(8) as follows:

65.20(8) *Subrogation.* The fund is subrogated to all county rights regarding any claim submitted or paid as provided in Iowa Code section ~~455J.5(5)~~ 459.505.

ITEM 28. Amend rule 567—65.21(459,459B), introductory paragraph, as follows:

567—65.21(459,459B) Transfer of legal responsibilities or title. If title or legal responsibility for a permitted ~~animal~~ confinement feeding operation and its ~~animal~~ confinement feeding operation ~~storage~~ structure is transferred, the person to whom title or legal responsibility is transferred shall be subject to all terms and conditions of the permit and these rules. The person to whom the permit was issued and the person to whom title or legal responsibility is transferred shall notify the department of the transfer of legal responsibility or title of the operation within 30 days of the transfer. Within 30 days of receiving a written request from the department, the person to whom legal responsibility is transferred shall submit to the department all information needed to modify the permit to reflect the transfer of legal responsibility. A person who has been classified as a habitual violator under Iowa Code section ~~455B.191~~ 459.604 shall not acquire legal responsibility or a controlling interest to any additional permitted confinement feeding operations for the period that the person is classified as a habitual violator. A person who has an interest in a confinement feeding operation that is the subject of a pending enforcement action shall not acquire legal responsibility or an interest to any additional permitted confinement feeding operations for the period that the enforcement action is pending.

ITEM 29. Amend **567—Chapter 65**, implementation sentence for Division I, as follows:

These rules are intended to implement Iowa Code sections 455B.101, ~~455B.104,~~ 455B.103, 455B.134(3)~~"e,"~~ "f," and 455B.171 ~~to 455B.188, and 455B.191~~; Iowa Code chapter 459; ~~and 1998 Iowa Acts, chapter 1209, sections 41 and 44 to 47~~ and 2009 Iowa Acts, House File 735 and Senate File 432.

ITEM 30. Amend rule 567—65.100(455B,459,459A), introductory paragraph, as follows:

567—65.100(455B,459,459A) Definitions. In addition to the definitions in Iowa Code sections 455B.101 and 455B.171 and ~~2005~~ Iowa Code ~~Supplement~~ section 459A.102, the following definitions shall apply to Division II of this chapter:

ITEM 31. Amend rule **567—65.100(455B,459,459A)**, definition of "Animal unit," as follows:

"Animal unit" means a unit of measurement based upon the product of multiplying the number of animals of each category by a special equivalency factor, as follows:

1. Slaughter and feeder cattle	1.000
2. Immature dairy cattle	1.000
3. Mature dairy cattle	1.400
4. Butcher or breeding swine weighing more than 55 pounds	0.400
5. Swine weighing 15 pounds or more but not more than 55 pounds	0.100
6. Sheep or lambs	0.100
7. Horses	2.000
8. Turkeys weighing ~~112 ounces~~ 7 pounds or more	0.018
9. Turkeys weighing less than ~~112 ounces~~ 7 pounds	0.0085
10. ~~Chickens~~ Broiler or layer chickens weighing ~~48 ounces~~ 3 pounds or more	0.010
11. ~~Chickens~~ Broiler or layer chickens weighing less than ~~48 ounces~~ 3 pounds	0.0025

ITEM 32. Adopt the following **new** definitions of "Livestock market," "Partially roofed animal feeding operation" and "Water well" in rule **567—65.100(455B,459,459A)**:

"Livestock market" means any place where animals are assembled from two or more sources for public auction, private sale, or on a commission basis, which is under state or federal supervision, including a livestock sale barn or auction market, if such animals are kept for ten days or less.

"Partially roofed animal feeding operation" means an animal feeding operation in which the animals have unrestricted access from any attached roofed structure and the square footage of the unroofed area is at least 10 percent of the square footage of any attached roofed area.

"Water well" means an excavation that is drilled, cored, bored, augered, washed, driven, dug, jetted, or otherwise constructed for the purpose of exploring for groundwater, monitoring groundwater, utilizing the geothermal properties of the ground, or extracting water from or injecting water into the aquifer. "Water well" does not include an open ditch or drain tiles or an excavation made for obtaining or prospecting for oil, natural gas, minerals, or products mined or quarried.

ITEM 33. Amend subrule 65.101(8) as follows:

65.101(8) Stockpiling of scraped manure and settleable solids. ~~A CAFO must manage stockpiles as required by 65.101(2) or 65.101(3).~~ Stockpiles of manure scraped from open feedlot operations and stockpiles of settleable solids shall comply with the following requirements.

a. Stockpiles must be land-applied in accordance with subrule 65.101(6) as soon as possible but not later than six months after they are established.

b. Stockpiles shall not be located within ~~200~~ 400 feet from a designated area or, in the case of a high quality water resource, within 800 feet~~, and areas of concentrated flow located downslope of and within 200 feet of the stockpile shall be planted to permanent vegetation cover, including filter strips and riparian forest buffers~~.

c. Stockpiles shall not be located in grassed waterways or areas where water ponds or has concentrated flow.

d. Stockpiles shall not be located within 200 feet of a ~~drainage tile line intake~~ terrace tile inlet or surface tile inlet or known sinkhole unless the stockpile is located so that any runoff from the stockpile will not reach the ~~intake~~ inlet or sinkhole.

e. Stockpiles shall not be located on land having a slope of more than 3 percent unless methods, structures or practices are implemented to contain the stockpiled solids, including but not limited to hay bales, silt fences, temporary earthen berms, or other effective measures, and to prevent or diminish precipitation-induced runoff from the stockpiled solids.

ITEM 34. Amend subrule 65.105(2) as follows:

65.105(2) *When a construction permit is not required.*

a. Research colleges. A construction permit is not required for construction of a settled open feedlot effluent basin or AT system if the basin or system is part of an open feedlot operation

which is owned by a research college conducting research activities as provided in ~~2005~~ Iowa Code ~~Supplement~~ section 459A.105.

b. Solids settling facilities. ~~A construction permit is not required for construction of a solids settling facility.~~ If only solids settling facilities are being constructed, a construction permit is not required. If solids settling facilities are proposed as part of a project that includes facilities that require a construction permit, then the proposed solids settling facilities are subject to a construction permit.

ITEM 35. Amend rule 567—65.108(455B,459A) as follows:

567—65.108(455B,459A) ~~Well~~ Water well separation distances for open feedlot operations.

65.108(1) *Settled open feedlot effluent basins.* Settled open feedlot effluent basins shall be separated from water wells as follows:

a. Public wells. 1,000 feet from shallow wells and 400 feet from deep wells;

b. Private wells. 400 feet from both shallow and deep wells.

65.108(2) *Open feedlots, solids settling facilities, feed storage runoff control structures and AT systems.* Open feedlots, solids settling facilities, feed storage runoff control structures and AT systems shall be separated from water wells as follows: for both public and private wells, 200 feet from shallow wells and 100 feet from deep wells.

65.108(3) *Variances.* Variances to this rule may be granted by the director if the ~~applicant~~ petitioner complies with the procedures and criteria in 561—Chapter 10 and provides an alternative that is substantially equivalent to the rule or provides improved effectiveness or protection as required by the rule. ~~Variance requests~~ Petition for a variance shall be made in writing at the time the construction permit application is submitted. The denial of a variance may be appealed to the commission.

ITEM 36. Amend paragraph **65.112(8)"a"** as follows:

a. Restrictions on the application of open feedlot effluent based on all of the following:

(1) No change.

(2) Calculations necessary to determine the land area required for the application of manure, process wastewater and open feedlot effluent from an open feedlot operation based on nitrogen or phosphorus use levels (as determined by phosphorus index) in order to obtain optimum crop yields according to a crop schedule specified in the nutrient management plan, and according to requirements specified in subrule 65.17(4). The 100 pounds of available nitrogen per acre limitation specified in paragraph 65.17(18)*"c"* (applicable to open feedlot operations and combined open feedlot and confinement operations with an NPDES permit because of requirements in subrule 65.17(4)) pertaining to liquid manure applied to land currently planted to soybeans or to land where a soybean crop is planned applies only to liquid manure, process wastewater or settled open feedlot effluent.

ITEM 37. Amend **567—Chapter 65**, Tables 3, 3a, 5 and 6, as follows:

TABLE 3

Annual Pounds of Nitrogen Per Space of Capacity

~~Source: PM 1811, Managing Manure Nutrients for Crop Production~~ Confinement Operations

Swine	Space	Liquid, Pit* or Basin**	Liquid, Lagoon***	Solid Manure
Nursery, 25 lb.	1 head	2	1	5
Wean-finish, 130 lb.				
Formed storage*				
Dry feeders	1 head	15		34
Wet/dry feeders	1 head	13		34
Grow-finish, 150 lb.				

Swine	Space	Liquid, Pit* or Basin**	Liquid, Lagoon***	Solid Manure
Formed storage*				
Dry feeders	1 head	21		29
Wet/dry feeders	1 head	19		29
Earthen storage**	1 head	14		~~29~~
Lagoon***	1 head		6	~~29~~
Gestation, 400 lb.	1 head	27	5	39
Sow & Litter, 450 lb.	1 crate	32	11	86
Farrow-nursery	Per sow in breeding herd	22	8	85
Farrow-finish	Per sow in breeding herd	150	44	172

Dairy, Confined	Space	Liquid, Pit* or Basin**	Liquid, Lagoon***	Solid Manure
Cows, 1200 & up lb.	1 head	164	59	140
Heifers, 900 lb.	1 head	81	44	65
Calves, 500 lb.	1 head	45	24	15
Veal calves, 250 lb.	1 head	22	12	10
Dairy herd	Per productive cow in herd	169	87	180

Beef, Confined	Space	Liquid, Pit* or Basin**	Liquid, Lagoon***	Solid Manure
Mature cows, 1000 lb.	1 head	105	23	147
Finishing, 900 lb.	1 head	95	19	132
Feeder calves, 500 lb.	1 head	53	11	73

Poultry	Space	Dry Manure
Layer, cages	1000 head	367
Broiler, litter	1000 head	585
Turkeys, litter	1000 head	1400

Open Feedlot Operations

		Runoff – liquids		
Species	Space	Earthen lots	Concrete lots	Solids-scraped
Beef, 400 sq. ft./hd.	1 head	5	3	66
Dairy, 1000 sq. ft./hd.	1 head	15	7	127
Swine, 50 sq. ft./hd.	1 head	1	3	18

* Formed manure storage structure

** Earthen manure storage basin

*** Anaerobic lagoon

TABLE 3a

Annual Pounds of Phosphorus (as P_2O_5) Per Space of Capacity

~~Source: PM 1811, Managing Manure Nutrients for Crop Production~~ Confinement Operations

Swine	Space	Liquid, Pit* or Basin**	Liquid, Lagoon***	Solid Manure
Nursery, 25 lb.	1 head	1	0.7	3
Wean-finish, 130 lb.				
Formed storage*				
Dry feeders	1 head	12		21
Wet/dry feeders	1 head	9		21
Grow-finish, 150 lb.				
Formed storage*				
Dry feeders	1 head	~~15~~ 18		18
Wet/dry feeders	1 head	13		18
Earthen storage**	1 head	10		~~18~~
Lagoon***	1 head		5	~~18~~
Gestation, 400 lb.	1 head	27	4	25
Sow & Litter, 450 lb.	1 crate	26	8	55
Farrow-nursery	Per sow in breeding herd	18	6	55
Farrow-finish	Per sow in breeding herd	109	33	110

Dairy, Confined	Space	Liquid, Pit* or Basin**	Liquid, Lagoon***	Solid Manure
Cows, 1200 & up lb.	1 head	78	44	42
Heifers, 900 lb.	1 head	38	33	20
Calves, 500 lb.	1 head	22	18	5
Veal calves, 250 lb.	1 head	10	9	3
Dairy herd	Per productive cow in herd	80	66	80

Beef, Confined	Space	Liquid, Pit* or Basin**	Liquid, Lagoon***	Solid Manure
Mature cows, 1000 lb.	1 head	66	17	73
Finishing, 900 lb.	1 head	59	14	66
Feeder calves, 500 lb.	1 head	33	8	37

Poultry	Space	Dry Manure
Layer, cages	1000 head	840
Broiler, litter	1000 head	585
Turkeys, litter	1000 head	1400

Open Feedlot Operations

Species	Space	Runoff – liquids: Earthen lots	Runoff – liquids: Concrete lots	Solids-scraped
Beef, 400 sq. ft./hd.	1 head	2	1	48
Dairy, 1000 sq. ft./hd.	1 head	5	2	69
Swine, 50 sq. ft./hd.	1 head	0.3	1	17

* Formed manure storage structure

** Earthen manure storage basin

*** Anaerobic lagoon

TABLE 5

Manure Production Per Space of Capacity

Swine	Space	Liquid, Pit* or Basin**	Liquid, Lagoon*** (Daily)	Solid Manure (Yearly)
Nursery, 25 lb.	1 head	0.2 gal	0.7 gal	0.34 tons
Wean-finish, 130 lb.				
Formed storage*				
Dry feeders	1 head	.86 gal		2.39 tons
Wet/dry feeders	1 head	0.66 gal		2.39 tons
Grow-finish, 150 lb.				
Formed storage*				
Dry feeders	1 head	1.2 gal		2.05 tons
Wet/dry feeders	1 head	0.90 gal		2.05 tons
Earthen storage**	1 head	1.2 gal		2.05 tons
Lagoon***	1 head		4.1 gal	2.05 tons
Gestation, 400 lb.	1 head	3.0 gal	3.7 gal	2.77 tons
Sow & Litter, 450 lb.	1 crate	3.5 gal	7.5 gal	6.16 tons
Farrow-nursery	Per sow in breeding herd	2.2 gal	5.4 gal	6.09 tons
Farrow-finish	Per sow in breeding herd	9.4 gal	30 gal	12.25 tons

Dairy, Confined	Space	Liquid, Pit* or Basin**	Liquid, Lagoon***	Solid Manure
Cows, 1200 & up lb.	1 head	18.0 gal	40.1 gal	14 tons
Heifers, 900 lb.	1 head	8.8 gal	29.9 gal	6.5 tons
Calves, 500 lb.	1 head	4.9 gal	16.5 gal	1.5 tons
Veal calves, 250 lb.	1 head	2.5 gal	8.2 gal	1.1 tons
Dairy herd	Per productive cow in herd	18.5 gal	59.8 gal	20 tons

Beef, Confined	Space	Liquid, Pit* or Basin**	Liquid, Lagoon***	Solid Manure
Mature cows, 1000 lb.	1 head	7.2 gal	15.7 gal	12.23 tons
Finishing, 900 lb.	1 head	6.5 gal	13.1 gal	11.00 tons
Feeder calves, 500 lb.	1 head	3.6 gal	7.3 gal	6.11 tons

Poultry	Space	Dry Manure
Layer, cages	1000 head	10.5 tons
Broiler, litter	1000 head	9.00 tons
Turkeys, litter	1000 head	35.00 tons

* Formed manure storage structure

** Earthen manure storage basin

*** Anaerobic lagoon

TABLE 6

Required Separation Distances for Confinement Feeding Operations Constructed on or after March 1, 2003—Swine, Sheep, Horses, Poultry, and Beef and Dairy Cattle

DISTANCES TO BUILDINGS AND PUBLIC USE AREAS[1]				
		Residences, Businesses, Churches, Schools		
Type of Structure	Animal Unit (AU) Capacity	Unincorporated Areas	Incorporated Areas	Public Use Areas
Anaerobic lagoons and uncovered earthen manure storage basins	500 AU or less	1,875 feet	1,875 feet	1,875 feet
	>500 AU to <1,000 AU	1,875 feet	1,875 feet	1,875 feet
	1,000 AU to <3,000 AU	2,500 feet	2,500 feet	2,500 feet
	3,000 AU or more	3,000 feet	3,000 feet	3,000 feet
Covered earthen manure storage basins	500 AU or less	1,250 feet	1,875 feet	1,875 feet
	>500 AU to <1,000 AU	1,250 feet	1,875 feet	1,875 feet
	1,000 AU to <3,000 AU	1,875 feet	2,500 feet	2,500 feet
	3,000 AU or more	2,375 feet	3,000 feet	3,000 feet
Uncovered formed manure storage structures	500 AU or less	None	None	None
	>500 AU to <1,000 AU	1,500 feet	1,875 feet	1,875 feet
	1,000 AU to <3,000 AU	2,000 feet	2,500 feet	2,500 feet
	3,000 AU or more	2,500 feet	3,000 feet	3,000 feet

Confinement buildings and covered formed manure storage structures	500 AU or less	None	None	None
	>500 AU to <1,000 AU	1,250 feet	1,875 feet	1,875 feet
	1,000 AU to <3,000 AU	1,875 feet	2,500 feet	2,500 feet
	3,000 AU or more	2,375 feet	3,000 feet	3,000 feet
Egg washwater storage structures	500 AU or less	None	None	None
	>500 AU to <1,000 AU	1,000 feet	1,875 feet	1,875 feet
	1,000 AU to <3,000 AU	1,500 feet	2,500 feet	2,500 feet
	3,000 AU or more	2,000 feet	3,000 feet	3,000 feet

DISTANCES TO WATER WELLS				
Type of Structure	Public Well		Private Well	
	Shallow	Deep	Shallow	Deep
Aerobic structure, anaerobic lagoon, earthen manure storage basin, and egg washwater storage structure ~~and open feedlot runoff control basin~~	1,000 feet	400 feet	400 feet	400 feet
Formed manure storage structure, and confinement building, ~~open feedlot solids settling facility and open feedlot~~	200 feet	100 feet	200 feet	100 feet

OTHER DISTANCES FOR ~~ANIMAL~~ CONFINEMENT FEEDING OPERATION STRUCTURES regardless of animal unit capacity	
Surface intake of an agricultural drainage well or water source other than major (Excluding farm ponds, privately owned lakes or when a secondary containment barrier is provided)	500 feet*
Wellhead, or cistern of agricultural drainage well, known sinkhole or major water source (Excluding farm ponds, privately owned lakes or when a secondary containment barrier is provided)	1,000 feet
Designated wetlands pursuant to subrule 65.11(4) and Iowa Code section 459.310	2,500 feet
Right-of-way of a thoroughfare maintained by a political subdivision (~~Excluding small feeding operations~~ Exemptions provided in subrule 65.12(2))	100 feet
*200 feet from a water source required for a dry bedded confinement feeding operation structure.	

[1]See rule ~~567 IAC 65.12(455B)~~ 567—65.12(459,459B) for exemptions available from the above distances

ITEM 38. Adopt the following **new** Tables 6a to 6d and 7 in **567—Chapter 65**:

TABLE 6a

Required Separation Distances for Confinement Feeding Operations Constructed on or after January 1, 1999, but prior to March 1, 2003—Swine, Sheep, Horses and Poultry

DISTANCES TO BUILDINGS AND PUBLIC USE AREAS[1]				
Type of Structure	Animal Unit (AU) Capacity and Animal Weight Capacity	Residences, Businesses, Churches, Schools		Public Use Areas
		Unincorporated Areas	Incorporated Areas	
Anaerobic lagoons and uncovered earthen manure storage basins	500 AU or less	1,250 feet	1,250 feet	1,250 feet
	>500 AU to <625,000 lbs	1,250 feet	1,250 feet	1,250 feet
	625,000 lbs to <1,250,000 lbs	1,875 feet	1,875 feet	1,875 feet
	1,250,000 lbs or more	2,500 feet	2,500 feet	2,500 feet
Covered earthen manure storage basins	500 AU or less	1,000 feet	1,250 feet	1,250 feet
	>500 AU to <625,000 lbs	1,000 feet	1,250 feet	1,250 feet
	625,000 lbs to <1,250,000 lbs	1,250 feet	1,875 feet	1,875 feet
	1,250,000 lbs or more	1,875 feet	2,500 feet	2,500 feet
Uncovered formed manure storage structures	500 AU or less	None	None	None
	>500 AU to <625,000 lbs	1,250 feet	1,250 feet	1,250 feet
	625,000 lbs to <1,250,000 lbs	1,500 feet	1,875 feet	1,875 feet
	1,250,000 lbs or more	2,000 feet	2,500 feet	2,500 feet
Confinement buildings and covered formed manure storage structures	500 AU or less	None	None	None
	>500 AU to <625,000 lbs	1,000 feet	1,250 feet	1,250 feet
	625,000 lbs to <1,250,000 lbs	1,250 feet	1,875 feet	1,875 feet
	1,250,000 lbs or more	1,875 feet	2,500 feet	2,500 feet
Egg washwater storage structures	500 AU or less	None	None	None
	>500 AU to <625,000 lbs	750 feet	1,250 feet	1,250 feet
	625,000 lbs to <1,250,000 lbs	1,000 feet	1,875 feet	1,875 feet
	1,250,000 lbs or more	1,500 feet	2,500 feet	2,500 feet

DISTANCES TO WATER WELLS				
Type of Structure	Public Well		Private Well	
	Shallow	Deep	Shallow	Deep
Aerobic structure, anaerobic lagoon, earthen manure storage basin and egg washwater storage structure	1,000 feet	400 feet	400 feet	400 feet
Formed manure storage structure and confinement building	200 feet	100 feet	200 feet	100 feet

OTHER DISTANCES FOR CONFINEMENT FEEDING OPERATION STRUCTURES regardless of animal unit capacity	
Surface intake of an agricultural drainage well or water source other than major (Excluding farm ponds, privately owned lakes or when a secondary containment barrier is provided)	500 feet
Wellhead or cistern of agricultural drainage well, known sinkhole or major water source (Excluding farm ponds, privately owned lakes or when a secondary containment barrier is provided)	1,000 feet
Designated wetlands pursuant to subrule 65.11(4) and Iowa Code section 459.310	2,500 feet
Right-of-way of a thoroughfare maintained by a political subdivision (Exemptions provided in subrule 65.12(2))	100 feet

[1]See rule 567—65.12(459,459B) for exemptions available from the above distances

TABLE 6b

Required Separation Distances for Confinement Feeding Operations Constructed on or after January 1, 1999, but prior to March 1, 2003—Beef and Dairy Cattle

DISTANCES TO BUILDINGS AND PUBLIC USE AREAS[1]				
Type of Structure	Animal Unit (AU) Capacity and Animal Weight Capacity	Residences, Businesses, Churches, Schools		Public Use Areas
		Unincorporated Areas	Incorporated Areas	
Anaerobic lagoons and uncovered earthen manure storage basins	500 AU or less	1,250 feet	1,250 feet	1,250 feet
	>500 AU to <1,600,000 lbs	1,250 feet	1,250 feet	1,250 feet
	1,600,000 lbs to <4,000,000 lbs	1,875 feet	1,875 feet	1,875 feet
	4,000,000 lbs or more	2,500 feet	2,500 feet	2,500 feet
Covered earthen manure storage basins	500 AU or less	1,000 feet	1,250 feet	1,250 feet
	>500 AU to <1,600,000 lbs	1,000 feet	1,250 feet	1,250 feet
	1,600,000 lbs to <4,000,000 lbs	1,250 feet	1,875 feet	1,875 feet
	4,000,000 lbs or more	1,875 feet	2,500 feet	2,500 feet
Uncovered formed manure storage structures	500 AU or less	None	None	None
	>500 AU to <1,600,000 lbs	1,250 feet	1,250 feet	1,250 feet
	1,600,000 lbs to <4,000,000 lbs	1,500 feet	1,875 feet	1,875 feet
	4,000,000 lbs or more	2,000 feet	2,500 feet	2,500 feet
Confinement buildings and covered formed manure storage structures	500 AU or less	None	None	None
	>500 AU to <1,600,000 lbs	1,000 feet	1,250 feet	1,250 feet
	1,600,000 lbs to <4,000,000 lbs	1,250 feet	1,875 feet	1,875 feet
	4,000,000 lbs or more	1,875 feet	2,500 feet	2,500 feet

DISTANCES TO WATER WELLS				
Type of Structure	Public Well		Private Well	
	Shallow	Deep	Shallow	Deep
Aerobic structure, anaerobic lagoon, earthen manure storage basin and egg washwater storage structure	1,000 feet	400 feet	400 feet	400 feet
Formed manure storage structure and confinement building	200 feet	100 feet	200 feet	100 feet

OTHER DISTANCES FOR CONFINEMENT FEEDING OPERATION STRUCTURES regardless of animal unit capacity	
Surface intake of an agricultural drainage well or water source other than major (Excluding farm ponds, privately owned lakes or when a secondary containment barrier is provided)	500 feet
Wellhead or cistern of agricultural drainage well, known sinkhole or major water source (Excluding farm ponds, privately owned lakes or when a secondary containment barrier is provided)	1,000 feet
Designated wetlands pursuant to subrule 65.11(4) and Iowa Code section 459.310	2,500 feet
Right-of-way of a thoroughfare maintained by a political subdivision (Exemptions provided in subrule 65.12(2))	100 feet

[1]See rule 567—65.12(459,459B) for exemptions available from the above distances

TABLE 6c

Required Separation Distances for Confinement Feeding Operations Constructed prior to January 1, 1999—Swine, Sheep, Horses and Poultry

DISTANCES TO BUILDINGS AND PUBLIC USE AREAS[1]				
Type of Structure	Animal Unit (AU) Capacity and Animal Weight Capacity	Residences, Businesses, Churches, Schools		Public Use Areas
		Unincorporated Areas	Incorporated Areas	
Anaerobic lagoons and uncovered earthen manure storage basins	500 AU or less	1,250 feet	1,250 feet	1,250 feet
	>500 AU to <625,000 lbs	1,250 feet	1,250 feet	1,250 feet
	625,000 lbs to <1,250,000 lbs	1,875 feet	1,875 feet	1,875 feet
	1,250,000 lbs or more	2,500 feet	2,500 feet	2,500 feet
Covered earthen manure storage basins	500 AU or less	750 feet	1,250 feet	1,250 feet
	>500 AU to <625,000 lbs	750 feet	1,250 feet	1,250 feet
	625,000 lbs to <1,250,000 lbs	1,000 feet	1,875 feet	1,875 feet
	1,250,000 lbs or more	1,500 feet	2,500 feet	2,500 feet
Uncovered formed manure storage structures	500 AU or less	None	None	None
	>500 AU to <625,000 lbs	1,000 feet	1,250 feet	1,250 feet
	625,000 lbs to <1,250,000 lbs	1,500 feet	1,875 feet	1,875 feet
	1,250,000 lbs or more	2,000 feet	2,500 feet	2,500 feet

Confinement buildings and covered formed manure storage structures	500 AU or less	None	None	None
	>500 AU to <625,000 lbs	750 feet	1,250 feet	1,250 feet
	625,000 lbs to <1,250,000 lbs	1,000 feet	1,875 feet	1,875 feet
	1,250,000 lbs or more	1,500 feet	2,500 feet	2,500 feet
Egg washwater storage structures	500 AU or less	None	None	None
	>500 AU to <625,000 lbs	750 feet	1,250 feet	1,250 feet
	625,000 lbs to <1,250,000 lbs	1,000 feet	1,875 feet	1,875 feet
	1,250,000 lbs or more	1,500 feet	2,500 feet	2,500 feet

DISTANCES TO WATER WELLS				
Type of Structure	Public Well		Private Well	
	Shallow	Deep	Shallow	Deep
Aerobic structure, anaerobic lagoon, earthen manure storage basin and egg washwater storage structure	1,000 feet	400 feet	400 feet	400 feet
Formed manure storage structure and confinement building	200 feet	100 feet	200 feet	100 feet

OTHER DISTANCES FOR CONFINEMENT FEEDING OPERATION STRUCTURES regardless of animal unit capacity	
Surface intake of an agricultural drainage well or water source other than major (Excluding farm ponds, privately owned lakes or when a secondary containment barrier is provided)	500 feet
Wellhead or cistern of agricultural drainage well, known sinkhole or major water source (Excluding farm ponds, privately owned lakes or when a secondary containment barrier is provided)	1,000 feet
Designated wetlands pursuant to subrule 65.11(4) and Iowa Code section 459.310	2,500 feet
Right-of-way of a thoroughfare maintained by a political subdivision (Exemptions provided in subrule 65.12(2))	100 feet

[1]See rule 567—65.12(459,459B) for exemptions available from the above distances

TABLE 6d

Required Separation Distances for Confinement Feeding Operations Constructed prior to January 1, 1999—Beef and Dairy Cattle

DISTANCES TO BUILDINGS AND PUBLIC USE AREAS[1]				
Type of Structure	Animal Unit (AU) Capacity and Animal Weight Capacity	Residences, Businesses, Churches, Schools		Public Use Areas
		Unincorporated Areas	Incorporated Areas	
Anaerobic lagoons and uncovered earthen manure storage basins	500 AU or less	1,250 feet	1,250 feet	1,250 feet
	>500 AU to <1,600,000 lbs	1,250 feet	1,250 feet	1,250 feet
	1,600,000 lbs to <4,000,000 lbs	1,875 feet	1,875 feet	1,875 feet
	4,000,000 lbs or more	2,500 feet	2,500 feet	2,500 feet

Covered earthen manure storage basins	500 AU or less	750 feet	1,250 feet	1,250 feet
	>500 AU to <1,600,000 lbs	750 feet	1,250 feet	1,250 feet
	1,600,000 lbs to <4,000,000 lbs	1,000 feet	1,875 feet	1,875 feet
	4,000,000 lbs or more	1,500 feet	2,500 feet	2,500 feet
Uncovered formed manure storage structures	500 AU or less	None	None	None
	>500 AU to <1,600,000 lbs	1,000 feet	1,250 feet	1,250 feet
	1,600,000 lbs to <4,000,000 lbs	1,500 feet	1,875 feet	1,875 feet
	4,000,000 lbs or more	2,000 feet	2,500 feet	2,500 feet
Confinement buildings and covered formed manure storage structures	500 AU or less	None	None	None
	>500 AU to <1,600,000 lbs	750 feet	1,250 feet	1,250 feet
	1,600,000 lbs to <4,000,000 lbs	1,000 feet	1,875 feet	1,875 feet
	4,000,000 lbs or more	1,500 feet	2,500 feet	2,500 feet

DISTANCES TO WATER WELLS				
Type of Structure	Public Well		Private Well	
	Shallow	Deep	Shallow	Deep
Aerobic structure, anaerobic lagoon, earthen manure storage basin and egg washwater storage structure	1,000 feet	400 feet	400 feet	400 feet
Formed manure storage structure and confinement building	200 feet	100 feet	200 feet	100 feet

OTHER DISTANCES FOR CONFINEMENT FEEDING OPERATION STRUCTURES regardless of animal unit capacity	
Surface intake of an agricultural drainage well or water source other than major (Excluding farm ponds, privately owned lakes or when a secondary containment barrier is provided)	500 feet
Wellhead or cistern of agricultural drainage well, known sinkhole or major water source (Excluding farm ponds, privately owned lakes or when a secondary containment barrier is provided)	1,000 feet
Designated wetlands pursuant to subrule 65.11(4) and Iowa Code section 459.310	2,500 feet
Right-of-way of a thoroughfare maintained by a political subdivision (Exemptions provided in subrule 65.12(2))	100 feet

[1]See rule 567—65.12(459,459B) for exemptions available from the above distances

TABLE 7

Required Separation Distances for Open Feedlot Operations, Stockpiles from Open Feedlot Operations, Stockpiles from Dry Manure Confinement Operations and Stockpiles from Dry Bedded Confinement Operations

DISTANCES TO WELLS FOR OPEN FEEDLOT STRUCTURES				
Type of Structure	Public Well		Private Well	
	Shallow	Deep	Shallow	Deep
Settled open feedlot effluent basin	1,000 feet	400 feet	400 feet	400 feet
Open feedlot, open feedlot solids settling facility, AT system and feed storage runoff basin	200 feet	100 feet	200 feet	100 feet
DISTANCES TO RESIDENCES AND SPECIAL AREAS FOR MANURE STOCKPILES[1, 2]				
Residence, commercial enterprise, bona fide religious institution, educational institution, or public use area (does not apply to stockpiles from SAFO sized confinements and open feedlots)				1,250 feet
Designated area other than a high-quality water resource				400 feet
High-quality water resource				800 feet
Terrace tile inlet or surface tile inlet – unless methods, structures or practices are implemented to contain the stockpiled manure				200 feet

[1]Manure stockpiles are prohibited on grassed waterways or where water pools on the surface. Manure stockpiles are also prohibited on land with slopes greater than 3% unless methods, structures or practices are implemented to contain the stockpiled manure to prevent or diminish precipitation-induced runoff from the stockpiled manure.

[2]See subparagraph 65.2(3)*"d"*(4) and paragraph 65.11(8)*"c"* for exemptions pertaining to dry manure stockpiles.